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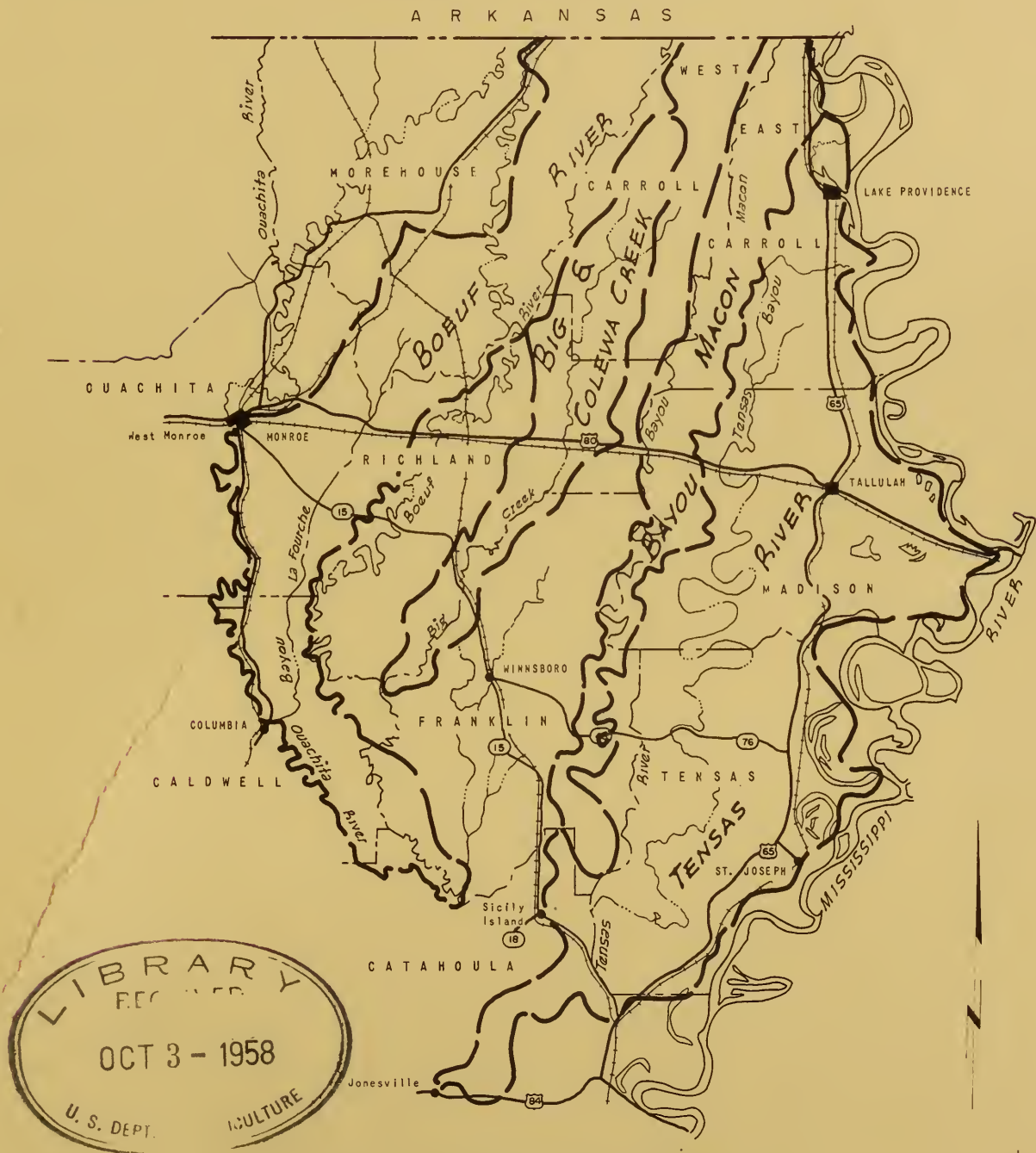
# BOEUF AND TENSAS RIVERS

AND

## BAYOU MACON PROJECT

LOUISIANA

### MISSISSIPPI RIVER AND TRIBUTARIES PROJECT REVIEW



SOIL CONSERVATION SERVICE  
ALEXANDRIA, LOUISIANA  
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BOEUF - TENSAS - MACON BASIN  
MISSISSIPPI RIVER AND TRIBUTARIES PROJECT REVIEW  
REPORT ON  
PRESENT AND ANTICIPATED AGRICULTURAL CONDITIONS

Prepared by The  
U. S. Department of Agriculture for The Mississippi River Commission

Soil Conservation Service  
Alexandria, Louisiana  
May, 1957



## AUTHORITY

This report has been prepared by the Soil Conservation Service, U. S. Department of Agriculture, covering studies made under authority of Sec. 6, P. L. 566, 83rd Congress and upon request of the Mississippi River Commission. The basis for study was agreed upon as set forth in the Project Study Statement dated December 22, 1956, and revised April 1957.

## AGENCY PARTICIPATION AND RESPONSIBILITIES

This report is based on data at hand and the combined judgement of agricultural technicians most familiar with the project area and its agricultural conditions and problems. Under a U. S. Department of Agriculture memorandum of understanding, consummated February 2, 1956, the U. S. Forest Service, the Agriculture Research Service and the Soil Conservation Service have each participated in the study.

The acreages and intentions of woodland owners, other than farmers, were developed by the U. S. Forest Service. All woodland yields, values and costs were developed by the U. S. Forest Service.

Projected price and cost data for farm crops and livestock enterprises, and interest rates for amortization and discounting were developed by the Agricultural Research Service. They also assisted the Soil Conservation Service in studies of field crop and pasture costs and in overall economic procedures.

The Soil Conservation Service, through the office of the State Conservationist, Louisiana, has been responsible for coordinating and conducting the project studies and preparing this report.

## PRESENT OR EXISTING CONDITIONS

A soil classification survey was made of the entire area and the various soil unit acreages were tabulated by projects, reaches, and zones to be used as a basis or foundation for the entire study.

Yield tables were developed for each project having a different soil production potential. Soil unit yields were for undrained land, drained land, and drained land irrigated for each crop.

Land use and cropping patterns were developed by soil units.

All of the above was then used in preparing tables for present conditions for flood damage study.

## FUTURE CONDITIONS AND NET RETURNS WITHOUT THE PROPOSED PROJECT

Using projected price and cost data supplied by the Agricultural Research Service as a guide, the Soil Conservation Service developed a cropping pattern for the future without the project which would reflect major changes in net income of the various crops grown in the area.

Acreages based on project lines supplied by the Vicksburg District, Corps of Engineers, were reduced by the acreages of dedicated land supplied by the U. S. Forest Service, to obtain the potential land for conversion.



This acreage was further reduced by acreages of soil units of low income production, and by acreages that would not be converted without the proposed project, based on trends in land conversion in undeveloped or partially developed areas. A determination, based on past experience of farmer participation in drainage and irrigation, was then made for the new acreage (present plus future without the proposed project.)

The future without project soil unit acreages; the future cropping pattern; weighted yields in proportion to undrained, drained, and drained land irrigated; projected prices; and projected costs were then used in determining the net return for the future without the proposed project. Included in these calculations are future net returns for woodland supplied by the U. S. Forest Service, which were applied to acreages of woodland expected to be converted in the future with the proposed project.

#### FUTURE CONDITIONS AND NET RETURNS WITH THE PROPOSED PROJECT IN PLACE

Acreages based on project lines supplied by the Vicksburg District, Corps of Engineers, reduced by acreages of dedicated land supplied by the U.S. Forest Service, gave the potential woodland for conversion. This acreage was reduced by that amount occurring on low income producing soils and by estimated lack of farmer participation. This acreage plus the acreage used in future without the proposed project made up the acreage by soil units for future with the proposed project conditions..

Based on project lines supplied by the Vicksburg District, Corps of Engineers, and past experience in farmer participation in drainage and irrigation in developed areas, it was possible to estimate the percent by soil units of land that would remain undrained, that would be drained, and that would be drained and irrigated in the future with the proposed project. (Availability of irrigation water was an important consideration in estimating the acreage expected to be irrigated.)

The increased proportion of land drained and irrigated allows a more diversified cropping pattern under future with project conditions. With long-term projected prices and a free economy, farmers will tend to adapt their crops to soils in such a manner as to obtain the highest net return. This will indicate a somewhat different cropping pattern than would occur under the future without project conditions..

The future with proposed project soil unit acreages; the future with proposed project cropping pattern; weighted yields in proportion to undrained, drained and drained land irrigated; projected prices and projected costs were then used in determining the net return for future with the proposed project in place.

The Soil Conservation Service was also responsible for determining the cost of group drainage, farm drainage and land conversions.

An important determination, in dollars, involved in the study was the percentage of benefits attributable to authorized projects in place, authorized projects not in place, and proposed but not authorized projects. This determination was made by the Soil Conservation Service after close study in cooperation with the Vicksburg District, Corps of Engineers.

## METHOD OF COMPUTING AGRICULTURAL VALUES CREDITABLE TO PROJECT

The Boeuf and Tensas Rivers and Bayou Macon project is authorized and the sub-projects are in various stages of construction. (See detailed description of sub-projects.)

In order to evaluate the effect of the proposed sub-projects consideration had to be given to the status and effect of the authorized project.

Two conditions were found to exist.

1. For some sub-projects the basis for computing agricultural benefits of the proposed sub-project was the difference between the future net returns without the proposed sub-project and future net returns with the proposed sub-project.

2. For other sub-projects the difference between the future net income without either the authorized or proposed sub-project in place and the future net income with both the authorized and proposed sub-projects in place gave the net return attributable to both the authorized and proposed sub-projects. A determination was then made of the percentage of net return attributable only to the proposed sub-project.

## LIMITS OF APPLICATION OF ESTIMATES

The estimates cover an appraisal of the agricultural values and costs that can be expected as a result of agricultural drainage in association with installation of the proposed project works. However, the data include no estimates of flood damage reduction, its values or costs, though the land use and cropping estimates reflect the flood protection that would be afforded by the proposed project works. Average flood-free yield estimates have been used throughout the study so that they can be used as a basis for calculation of flood damage reduction by the Corps of Engineers, based upon its own hydrologic studies. The Department of Agriculture, having made no hydrologic studies of its own in the area, has developed estimates on the basis of hydrologic data provided by the Corps of Engineers, including the delineation of limits of project effectiveness, and maximum overflow that established the conditions for project study. Further studies may result in revised hydrologic data that would require modification of the agricultural data contained herein.

In determining drainage needs under future condition with proposed project, all soils of such characteristics as to not require drainage have been eliminated from drainage evaluations. Similarly, all soils that could be drained under future without project conditions, have been eliminated.

## DESCRIPTION OF PROJECT

The overall project includes the improvement of main stem alluvial valley streams of the Boeuf and Tensas Rivers, and Bayou Macon, and tributaries in Arkansas and Louisiana. That portion of the project considered herein lies in Louisiana and includes 530 miles of streams in the authorized project, and 22 miles of extensions thereto. The project limits of the various stream areas under consideration in Louisiana extend from the Mississippi River levees on the east to the Bayou Bartholomew drainage area and Ouachita River levees on the west, and the Red River backwater levee on



the South. The project will affect a total area of approximately 1,160,000 acres.

The following assumptions are made for the purpose of the study: the existing Tensas-Cocodrie backwater levee is complete; the existing Ouachita River east bank levee will not be overtopped by headwaters; the Mississippi and Arkansas River levees will give complete protection to the area against Mississippi and Arkansas River headwater floods; the Old River closure structure will be operated so as not to materially change the frequency or height of that portion of the project subject to backwater flooding.

The principal drainage arteries, Boeuf River and Bayou Lafourche, Big and Colewa Creeks, Bayou Macon, and Tensas River were divided into reaches to facilitate an economic study of the areas in relation to key stream gages and topography. The status of improvements proposed under the existing authority and the additional works of improvement planned in connection with this study for the various reaches are as follows:

Tensas River, Reach T-1, Miles 153-164. This was a proposed extension to the authorized project about 6 miles in length. No channel improvement work will be performed on this reach under the existing authority; therefore, this reach was studied by the Soil Conservation Service on the same basis as a new project in accordance with agreed procedures.

Tensas River, Reach T-2, Miles 125-158. Under the authorized project, 33 miles of channel enlargement and clearing and snagging have been completed but little development has taken place as a result of this improvement. Under the proposed plan this 33-mile reach would be further improved. The Soil Conservation Service estimated the ultimate development that would take place as a result of both the existing project and the proposed project, and estimated the percentage of development attributable to the proposed project. It was assumed that there would be no "A" zone for the proposed project, since all benefits in this zone would be attributable to the existing project.

Tensas River, Reach T-3, Miles 0.0-125. Clearing and snagging have been accomplished on this reach between miles 60-125 under the authorized project but little development has taken place as a result of this improvement. The remainder of the reach between miles 0.0-60 are also proposed for improvement under the existing authority. Under the proposed plan the entire 125-mile reach would be further improved by the Corps of Engineers. The Soil Conservation Service estimated the ultimate development that would take place as a result of the existing project, the authorized 60-mile extension, and the proposed MR&T enlargement, and estimated the percentage of this development due to installation of the proposed project. No "A" zone would occur in this project, since all benefits in the "A" zone are assumed to be due to the existing and authorized projects.

Bayou Vidal, Reach T-3A, Miles 0.0-16.2. This stream improvement is an extension to the authorized project about 16.2 miles in length. No channel improvement work will be performed on this reach under the existing authority; therefore, this reach was studied by the Soil Conservation Service on the same basis as a new project in accordance with agreed procedures.

Bayou Macon, Reach BM-7, Miles 121-149. Under the existing authority, this 28-mile reach would be improved by clearing and snagging. Work has not commenced, but is scheduled for the future. Under the proposed plan this 28-mile reach would be further improved by the Corps of Engineers. The Soil Conservation Service estimated the ultimate development that would take place as a result of installation of both the authorized and proposed projects, and estimated the percentage of this development due solely to the proposed project. No "A" zone is shown for the proposed project since it is assumed that all benefits in this zone are attributable to the authorized project.

Bayou Macon, Reach BM-8, Miles 79-121. Under the existing authority, this 42-mile reach would be improved by clearing and snagging. Construction has not been started, but is scheduled for the future. Under the proposed plan this 42-mile reach would be further improved by the Corps of Engineers. The Soil Conservation Service estimated the ultimate development that would take place as a result of installation of both the authorized and the proposed projects, and estimated the percentage of this development due solely to the installation of the proposed project. No "A" zone is shown for the proposed project, since it was assumed that all benefits in this zone would be attributable to the authorized project.

Bayou Macon, Reach BM-9, Miles 0.0-79.0. Under the existing authority, this 79-mile reach would be improved by clearing and snagging. Construction has not been started, but is scheduled for the future. Under the proposed plan this 79-mile reach would be further improved by the Corps of Engineers. The Soil Conservation Service estimated the ultimate development that would take place as a result of installation of both the authorized and the proposed projects, and estimated the percent of this development due solely to installation of the proposed project. No "A" zone is shown for the proposed project, since it is assumed that all benefits in this zone are attributable to the authorized project.

Big and Colewa Creek, Reach BC-1, Miles 74-81. This 7-mile reach has been improved under the existing authority, and it was assumed that the reach had obtained its maximum development under the existing authority. Under the proposed plan, this 7-mile reach would be further improved by the Corps of Engineers, and the Soil Conservation Service developed data pertinent to the area that would be affected by the additional channel improvements. Zones A, B, and C were studied in this reach.

Big and Colewa Creek, Reach BC-2, Miles 24-74. This 50-mile reach has been improved under the existing authority, and it was assumed that the area had obtained the maximum development that would result from the improvements. Under the proposed plan, this 50-mile reach would be further improved, and the Soil Conservation Service developed data pertinent to the area that would be affected by the additional channel improvements. Zones A, B, and C were studied in this reach.

Big and Colewa Creek, Reach BC-3, Miles 0.0-24. This 24-mile reach has been approved under the existing authority, and it was assumed that the area had obtained the maximum development that would result from the channel improvement. Under the proposed plan, this reach would be further improved by the Corps of Engineers, and the Soil Conservation Service developed data pertinent to the area that would be affected by the additional channel improvements. Zones A, B, and C were studied in this reach.



Boeuf River, Reach BR-3, Miles 151-190. This 39-mile reach has been improved under the existing authority, but little development has taken place as a result of the improvement. Under the proposed plan, this 39-mile reach would be further improved by the Corps of Engineers. The Soil Conservation Service estimated the ultimate development that would take place as a result of the existing project and the installation of the proposed project, and estimated the percentage of this development due solely to the installation of the proposed project. No "A" zone was studied in this reach.

Upper Bayou Lafourche, Reach BR-4A, Miles 35-56. (Bayou Lafourche is an integral part of the Bayou Lafourche-Boeuf River drainage artery). This 21-mile reach has been improved under the existing authority, and it was assumed that the area had obtained the maximum development that would result from the channel improvement. Under the proposed plan, this 21-mile reach would be further improved by the Corps of Engineers. The Soil Conservation Service developed data pertinent to the area that would be affected by the additional channel improvement. Zones A, B, and C were studied in this reach.

Lower Bayou Lafourche, Reach BR-4B, Miles 0.0-35.0. This 35-mile reach has been improved under the existing authority, and for the purpose of this study it was assumed that the area within this reach had obtained the maximum development that would result from the channel improvement. Under the proposed plan, this 35-mile reach would be further improved by the Corps of Engineers. The Soil Conservation Service developed data pertinent to the area that would be affected by the additional channel improvement. Zones A, B, and C were studied in this reach.

Lower Boeuf River, Reach BR-5, Miles 0.0-32.6. This 32.6-mile reach of Boeuf River is the outlet for the Boeuf River-Bayou Lafourche drainage artery into Ouachita River. It is proposed to clear and snag this reach under the existing authority. Construction work has not been initiated but is scheduled for the future. Under the proposed plan this 32.6-mile reach would be further improved by the Corps of Engineers. The Soil Conservation Service estimated the ultimate development that would take place with the installation of both the authorized and the proposed projects, and estimated the percentage of this development due solely to the installation of the proposed project. No "A" zone was shown for the proposed project since it is assumed that all benefits in this zone are attributable to the authorized project.

### SOILS

Because of widely different characteristics the soils of the Boeuf, Tensas, Macon Basin were divided into three major groups designated as the BOA problem area, the LT problem area and the BO problem area. These problem areas were then divided into soil units for the purpose of this study.

### THE BOA PROBLEM AREA

Known geographically as the Ouachita Cone, the soils of this project are derived from the sediments of the Arkansas, Ouachita, and Mississippi Rivers which, with their tributaries, carry sediments eroded from a large part of the United States. The widely differing geologic sources and ages of material carried by these streams cause consequent differences in chemical and physical makeup of their sediments. The alternate flooding by one river or another or all rivers at once, each carrying different sediments,



together with the shifting of stream channels and consequent reworking of material has given rise to a rather unique conglomeration of soils which differ chemically and physically from soils found along the individual rivers.

The Arkansas River, which was the dominant influence on sedimentation in this area, changed its course and there has been very little recent deposition except in the backwater areas; therefore, those soils have lost much of their minerals through leaching and are developing rapidly into terrace.

The sediments from which these soils were formed, the process by which the sediments were deposited, and the geologic age of these soils, all tend to make them less fertile than similar soils occurring along the Mississippi, Arkansas, and Red Rivers.

Within the project are also several islands which are older geologically and have developed into true terrace. These soils are generally less productive than the better bottomland soils.

The BOA problem area was divided into the following soil units.

Soil Unit 1a-BOA- Fine textured, very slowly permeable, very poorly drained soils, bottomland.

Soil Unit 1a is very difficult to drain, till, obtain a stand of seedlings on, and to irrigate. As the organic matter content lowers, all the above difficulties increase. When protected from overflow, and drained and managed properly, soil unit 1a will grow fair yields of pasture, oats, and corn and will grow fair to good yields of pasture when irrigation is added. Without proper management, this soil soon loses organic matter, becomes impervious and less productive, and is often abandoned.

Soil Unit 1-BOA- Fine textured, very slowly permeable, poorly drained soils, bottomlands.

Soil Unit 1 is rather difficult to drain, till, obtain a stand of seedlings on, and to irrigate; and as the organic matter content lowers, all the above difficulties increase. When properly drained and managed, fair to medium yields of pasture and fair yields of corn, oats, cotton, and soybeans may be obtained.

Soil Unit 2-BOA- Moderately fine textured, somewhat poorly drained soils, bottomlands.

Soil Unit 2 is moderately difficult to drain, till, obtain a stand of seedlings on, and to irrigate; and as the organic matter content lowers, becomes more difficult. When properly drained and managed, however, soil unit 2 can be expected to produce moderate to high yields of pasture, corn, cotton, soybeans, and oats.

Soil Unit 5-BOA- Medium textured, moderately well, and well drained soils, bottomlands.

Soil Unit 5 is usually rather easy to drain, till, obtain a stand of seedlings on, and to irrigate. When properly drained and managed, these soils produce moderate to high yields for the area but generally require a more complete fertilizer than the heavier soils.

Soil Unit 11-BOA- Medium and moderately coarse textured, well drained soils, bottomlands and natural levees or low terraces.

Soil Unit 11 in Louisiana is medium textured and requires some drainage, but it is usually easy to drain. This soil is easy to till, to obtain a stand of seedlings on, and to irrigate. Soil Unit 11 usually requires a complete fertilizer but under good management will produce high yields of all crops adapted to the area. This soil is usually ideal for irrigation because of its permeability, slope and location.

#### THE LT PROBLEM AREA

Known locally as Macon Ridge these soils are formed from water deposited loess which has developed into loessial terrace soils. These soils are older geologically than either the BOA bottomlands or the BO bottomlands and thus differ considerably in profile development, mineral content and fertility.

The LT problem area was divided into the following soil units.

Soil Unit 8-LT- Medium and moderately fine textured, poorly and somewhat poorly drained soils, bottomlands and terraces of tributary streams.

This soil is found in long narrow stream channels chiefly within the loess terraces and is made up mainly of reworked loess sediments.

Where flooding is not a problem, this soil will produce moderate to high yields if drained and properly managed.

Soil Unit 9-LT- Medium textured, well and moderately well drained soils, loess terraces.

Soil Unit 9 is easy to drain, till, obtain a stand of seedlings on, and to irrigate. Soil Unit 9 is generally low in nitrogen, lime and potash and moderately low in phosphate but with proper fertilization and management can be expected to produce moderately high yields of all crops adapted to the area.

Soil Unit 9 contains small areas of 10 and 8.

Soil Unit 10-LT- Medium textured, poorly and somewhat poorly drained soils with fragipans and claypans, loess terraces.

Soil Unit 10 is moderately difficult to drain, till, obtain a stand of seedlings on, and to irrigate. As the organic matter content becomes lower, all of these difficulties increase. This soil is generally low in nitrogen, lime and phosphorus and moderately low in potash.

With proper drainage and management these soils will produce moderate yields of pasture, corn, cotton, soybeans, and oats.

Soil Unit 10 includes small areas of soil units 9 and 8.

The Boeuf-River-Bayou Lafourche Project lies mostly within the BOA problem area with a small amount in the LT problem area.

The Big and Colewa project lies mostly within the LT problem area with a small amount in the BOA problem area.

#### THE BO PROBLEM AREA

The Tensas River and the Bayou Macon projects lie entirely in the BO problem area. Soils in this area are very fertile bottomland soils deposited by the Mississippi River and its tributaries in recent time geologically.



The BO problem area was divided into soil units as follows:

Soil Unit 1-Fine textured, very slowly permeable, poorly drained soils, bottomlands.

This soil is very fertile but is difficult to till, drain and to obtain a stand of seedlings on, especially when the organic matter becomes depleted. Nitrogen is generally the only fertilizer required on this soil. When protected from overflow, drained and well managed, this soil will produce moderate to high yields of all crops grown in the area.

Soil Unit 2- Moderately fine textured, somewhat poorly drained soils, bottomlands.

This is a fertile soil but requires drainage and good management for it to produce high yields of all crops grown in the area. This soil generally requires nitrogen, responds to phosphate and in some cases responds to potassium.

Soil Unit 5 BO-Medium texture, moderately well and well drained soils, bottomlands.

This is a fertile, productive, easy to till soil and under good management will produce high yields of all crops grown in the area. This soil generally responds to nitrogen, phosphate and potassium.

Soil Unit 11 BO-Medium and moderately coarse textured, well drained soils, bottomlands.

All the soil unit 11 mapped in Louisiana is medium textured and is fertile, easy to till and productive under good management. This soil generally requires a complete fertilizer.

Soil Unit 12-Coarse textured, excessively drained soils, bottomlands.

Very small areas occur in the project and because they did not require drainage or were already drained they did not enter into the calculations. These soils are generally deficient in minerals and organic matter and are probably best suited to bermuda grass pasture or hay.

#### OVERALL LAND USE

The Boeuf River-Bayou Lafourche project area consists of 322,396 acres woodland, 154,590 acres open land, 5,111 acres in water and 3,798 acres urban. Conversion from woodland to pasture and crop use has been slow due to lack of drainage. Most of the conversion has been for the purpose of growing rice.

The Big and Colewa project area consists of 99,195 acres of woodland, 104,067 acres of open land, and 280 acres urban. Conversion from woodland to pasture and cropland has been rapid in the past but has slowed down at present due to lack of drainage outlets.

The Tensas River project area consists of 263,071 acres of woodland, 4,095 acres urban and water, and 151,342 acres of pasture and cropland. Woodland conversion to pasture and cropland has been slowed due to lack of drainage outlets and roads.

The Bayou Macon project consists of 41,727 acres of woodland and 10,280 acres of open land and pasture. Woodland conversion has been rather slow due to lack of roads and drainage outlets.

## WOODLAND

Woodland use in the Boeuf-Tensas-Macon project area is governed primarily by owner policy, which is affected by accessibility, flood-drainage patterns and available markets for forest products. This picture is complicated by the mineral rights law peculiar to Louisiana, these rights being most easily retained by fee ownership. Over 373,000 acres, or 32% of the total area, are reserved in forest cover. The managed component of this total includes ownerships ranging from over 100,000 acres to less than 1,000. The larger holdings devoted to timber production comprise wood using industry lands and wisely managed properties hold primarily for mineral rights. Medium and small ownerships are composed of industrial holdings, woodland portions of plantations, land reserved for mineral purposes and tracts kept in woods for wildlife habitat. Many of these smaller ownerships are managed by industrial foresters for the mutual benefit of owner and industry. As would be expected, these woodlands are in better than average condition. A substantial portion of the reserved acreage is in unmanaged tracts held for mineral rights. Any saleable timber is disposed of by clear cutting while grazing is frequently done under lease. The end result is a run down forest with a sizeable component of cull volume. Even though prevention of adverse possession is the signal aim of "management", these lands are still unavailable for conversion to agriculture. Other reserved lands are sometimes cut more conservatively, placing them in a medium level of forest management.

Unreserved tracts generally receive minimum attention. Larger properties held for mineral rights are sometimes available for clearing on a lease basis. These woods have usually deteriorated to the same condition described above. Some owners with larger holdings seek the advice of consultants which results in various degrees of management, though rarely intensive, as they are reluctant to invest in the cultural practices necessary for stand improvement. Farm woodlots, as a general rule, are sumps and drainage outlets. They furnish low grade products like fire wood and fence posts. Usually they are heavily grazed. Little management is applied to small ownerships not included in a farm unit and present condition depends on the time of the last cutting. There are notable exceptions to these cases, particularly in the Tallulah-Newellton area. Here medium and small properties are being placed under sound management by industrial foresters. Much of this acreage is not considered in the reserved class as there is no binding agreement between owner and company. One company manages over 25,000 acres under these conditions and it is significant to note that not one land owner has cancelled an agreement in the six years that this program has been in effect. Other smaller ownerships have been handled quite conservatively but this is not the general rule.

Woodlands in larger blocks tend to be more inaccessible, resulting in lighter fire damage, better qualify second growth and yield. Grazing continues to be a problem due to the open range law and traditional attitude of local residents. Cutting is taking place throughout the area but production is much less than what could be expected under sound management. Extensive clearing is found in Reaches BC-1 and BC-2 where only 6% of the area is reserved. In Reach T-1 with no reserved acreage, 9 of 25 sample points fall on land cleared within the last two years. Boeuf River, Bayou Macon and Tensas River had 34%, 25% and 37% of total woodland acreage reserved for forest cover.



## CROPPING PATTERN

Cropping patterns vary with soil units, drainage conditions and by problem areas and, therefore, by projects; however the following is the general cropping pattern for the entire basin for the various conditions studied.

The present cropping pattern is largely geared to present acreage controls. Cotton is usually grown on the lighter and better drained alluvial soils, unless a farm consists entirely of heavy or medium textured soils. In this case cotton is grown on the most favorable part of the farm from a standpoint of fertility and drainage. Land that would normally be planted to cotton, but is restricted due to crop controls, is now used for production of soybeans, oats and corn, or for pasture. On heavy alluvial soils pasture is usually dominant followed by soybeans, oats, corn and cotton. On medium textured alluvial soils, cotton is grown extensively, followed by pasture, soybeans, corn and oats. On the loessial soils pasture is the predominant land use, followed by cotton, corn, soybeans and oats for pasture and grain.

The cropping pattern for future without project conditions is based on projected prices and undrained yields assuming that the cropping pattern would largely be determined by the net return of the various crops under predominantly undrained conditions for the entire basin. Under these conditions production of soybeans, oats, corn and beef would be more favorable, and production of cotton less favorable. On the heavier alluvial soils, oats, and pasture would be dominant, followed by soybeans, corn and cotton. On the medium and light textured alluvial soils the cropping pattern would be, in order of importance, soybeans, oats, corn, pasture and cotton. On the loessial soils, oats for pasture and grain would be the dominant crop, followed by soybeans, corn, pasture and cotton.

The cropping pattern for future with project conditions is based on projected prices and drained land yields and costs, assuming the cropping pattern would largely be determined by the net return of the various crops, under these conditions, soybeans would be the dominant crop on all alluvial soils, followed by corn and oats (in about equal amounts), pasture, and cotton. On the loessial soils, oats for pasture and grain would be most intensively grown, followed by soybeans, corn, pasture and cotton.

## YIELDS

Yield tables were developed for each of the three problem areas. These tables are by soil units for each crop and are estimates of yields being attained or expected to be attained by average producers without drainage, with drainage, and with drainage and irrigation. Yields were weighted in proportion to the percentage of land undrained, drained, and drained and irrigated.

Woodland yields are based on sampling studies conducted in the area by the U. S. Forest Service. Yields are based on average growth rates applicable to the species, stand sizes and ages found. These yields represent the units of wood products and values that will be attained on the average for the next fifty years under the level of management that can be expected to prevail based on present findings in the area. Board and cubic foot yields were computed in the work sheets but for simplicity are shown in Table III as a present dollar value per acre



## PRICES

Projected field crop and livestock prices used in this report were developed jointly by the Agricultural Research Service and Agricultural Marketing Service. Projected prices have been used, based on most likely long-range expectations, and estimates of cropping patterns have been influenced by the assumption that such prices will prevail. Projected prices were developed from studies on the prospective conditions of product supplies and requirements. In order to remove the effects of price support programs and in order to reflect the economy of production in competing areas, the projections assume the eventual attainment of a relatively free market for agricultural products.

In evaluating the long-run aspects of deferred land development and improvement projects, the use of the projected prices makes it unnecessary to restrict the acreage of "control" crops in crop income computations.

Crop acreages shown for future conditions are not compatible with a projection of 1955 prices into the future, however. Neither do they seem to portray attainable goals for restricted crops during the surplus disposal period in the immediate years ahead. Therefore, if 1955 prices were to be used in projection of future project conditions, or for projects where early construction is contemplated, there would appear to be little or no justification for increasing the acreage of surplus or "control" crops (cotton and rice) over 1955 allotment acreages.

Woodland production acre values are based on average 1955 prices, f.o.b. mill yard or railroad siding. These prices are considered to be a realistic price projection for future conditions. All values obtained from the application of 1955 prices have been discounted to present worth on all increments in production and value due to application of high level management and for any time lag in availability of products for harvest.

## CROP PRODUCTION COSTS

Production costs for all field crop and livestock enterprises were developed from a study of large and small Mississippi River bottomland farms. Since production costs by enterprises are not the same for large farms as for small, these costs were weighted in accordance with the proportionate acreage of large and small farms expected to exist in the project area under future conditions. Production costs, as used for project evaluation purposes, include all operational costs required to attain yield levels indicated in project cost tables (such as allowances for labor, power, machinery, materials and services required to produce and market the product), all farm overhead costs necessary in farm operation (except a charge for land), and an allowance for management expense which includes an estimated amount required for the operator's management and for any employed management personnel.

Land charges were omitted from the cost analysis because net returns to land were being determined for conditions with and without the project. Overhead charges (which include such items as a charge for buildings, upkeep of operational machinery, interest on investment, and insurance) and management charges were allocated to enterprises in proportion to the specified costs of production expended on each crop. Some production costs have been treated as variables with yield levels attained (most harvest costs, fertilizer usage, poisoning, etc.) while other costs have been assumed to be

fixed regardless of yield (such as soil preparation, cultivation, and machine-picking cost). Preharvest, harvest, overhead and management costs have been computed separately to derive total crop production costs.

Production costs used for projections are approximately 96 percent of the 1955 level of costs incurred by farmers.

It should be noted that yield-production cost relationships are not the same summary tables (all soils) as for individual soils tables. A small portion of this difference is statistical in nature, and other differences are due to the weighting effect of summaries where both yields and production costs are weighted in proportion to the total acreage and total cost in each soil unit.

Where supplemental irrigation costs are involved, such costs were added to standard cost tables to determine total production costs. These costs consist of preharvest and overhead charges. They have already been added to the costs shown in all project tables in proportion to acres irrigated (supplemental irrigation only).

Production costs for forest products were based on costs prevailing in and adjacent to the locality during 1955. These costs were estimated to be a reasonable level for projection to future conditions. Costs cover conversion of standing timber to rawwood products at mill or rail siding, including a return to management; a cultural and crop management cost consisting of an amortized annual charge for timber stand improvement work; an allowance for management and supervision by owners, their representatives and foresters; and forest protection costs. Conversion costs per acre have been discounted to present worth in the same manner as production values.

#### NET CROP PRODUCTION RETURNS

The analysis of crop production by soil units, upon which the summary tables are based, generally indicate the gross value of production to be greater than production costs. For the future conditions without the project, however, production costs of a few crops on some of the soil units are higher than gross value of the crop. A correction has been made in the summary tables to remove the effect of these negative net returns where they occur. In making the correction, the actual returns for the negative net returns were assumed to be zero. In the long-run, shifts in land use may be expected that would largely avoid the losses incurred with the cropping system shown. By indicating a net income of zero for crops having a negative net return, the net error involved is negligible, and well within the limits of error in basic information used in project area analysis. Higher yields, as expected, show larger net returns to land than lower yields for the same enterprise.

The basic principle involved in this analysis is that project justification should not be dependent upon negative values and, therefore, that the total net returns shown for future project conditions places a ceiling on project benefits. Inasmuch as this analysis assumes flood-free yields consideration has not been given to the effect of flood damage on average annual net income.

#### LAND USE CONVERSIONS AND COSTS

Tables VI show the conversions that are anticipated from the influence



of the various projects and the development of the associated group and farm drainage systems. Tables VI also show the cost of making these conversions at present prices. A rather large number of acres are expected to be converted from woodland to cultivated crops and pasture with the provision of major drainage outlets and associated group and farm drainage systems.

It is estimated that these conversions will all be profitable enough to be desirable from the standpoint of the owner and operator. If the operator secures the inducement of a reasonable income over and above his loss of present woodland value and his land use conversion and drainage costs, he will probably go ahead with land conversions rather than wait for a long period of years for deferred woodland income.

Items of conversion costs include all expense of putting land from its present state into condition to produce a crop or livestock enterprise, with only normal production costs remaining to be incurred.

All capital costs of conversion have been amortized at 5 percent for a period of 50 years. Except for pasture maintenance, included as an annual conversion cost for "new" pasture acreage and improved pasture acreage, all other maintenance is included as part of crop production costs.

#### FARM DRAINAGE SYSTEMS AND COSTS

Table VII contains estimates of amounts and costs of farm drainage systems that can be expected after the major outlets have been satisfactorily improved. Approximately 10 percent of the wet land has been taken out for farmsteads, roads, waste, etc., and thus is not available for crop use. Another 18 per cent will not be improved because of a lack of farmer participation. This leaves an estimated 72 per cent of the wet land to be drained for crop production.

Cost estimates were based on all ditching and structural needs for systems to serve an average of one square mile. Computed at 1955 levels, they include the installation (construction, engineering and contingency) costs required for farm drainage systems for satisfactory removal of surface water accumulations that are likely to occur for the various conditions of rainfall and run-off involved. Requirements vary by soil mapping units and by land use. Estimates are based on standard design data for conditions involved.

Farm drainage system capital costs have been amortized for a useful life period of 10 years at 5 percent for all projects except Reach T-1 and Reach T-3A of the Tensas River. Farm drainage costs in these two reaches were amortized for a 20 year period at 5 percent.

The two reaches amortized for a 20 year period are the most stable and best developed areas in the Boeuf-Tensas-Macon project area. In all other reaches a ten-year amortization period was used because of less desirable soils, changing pattern of land use, lack of complete road systems and other factors.

Annual maintenance costs of farm drainage systems, varying with soil mapping units and land use, have been added to the amortized annual equivalent of installation costs to derive the total annual cost of farm drainage system.



## GROUP DRAINAGE SYSTEMS AND COSTS

The Louisiana Department of Public Works has provided the Boeuf, Tensas, and Macon area with a system of adequate group intermediate ditches with the major streams for outlet. These ditches have not always functioned properly due to the inadequacy of the major streams to take the water pumped into them. With the proposed improvements in place, the ditches should function as planned by the Department of Public Works.

The ditches were constructed under local option elections with the Department of Public Works putting up about 40 percent of the funds and the rest derived from a parish wide tax. Maintenance bonds were also voted for the drainage systems and most of the parishes have bought draglines for maintenance purposes. Most of the ditches are relatively new and maintenance work has just started in some parishes.

The draglines have also been used to cut additional group ditches to afford more outlets for the farmers in this area. Additional group facilities (18 miles) are needed in Reaches BC-1 and BC-3 of Big and Colewa Creek, and Reach T-3 of Tensas River Project.

Table VII itemizes the costs required to install and maintain the needed group drainage ditches and appurtenant structures. Installation costs have been amortized for a useful life period of 20 years at  $3\frac{1}{2}$  percent. This period is based on changing patterns of land use, sedimentation, etc., and agreed upon by the field engineers. Maintenance costs have been added to this amount to derive the total annual cost of group drainage systems.

## BENEFITS AND ASSOCIATED COSTS

Table IX for each reach summarizes net annual returns from Tables III and IV for zones A and B; annual costs of making land conversions; (from Table VI); and annual costs for establishing farm and group drainage systems (from Tables VII and VIII).

Returns and gross benefits, and associated annual costs of land conversions and farm drainage systems, except for Reach T-3, have been discounted at 5 percent in column 3, Table IX to account for an estimated 10-year lag and build-up period to full installation and maintenance requirements, and benefit accrual. The ten year period of lag was selected because of the rapid rate at which farmers are presently taking advantage of existing drainage facilities. Consideration was also given to the rate at which technical assistance could be furnished farmers for installing farm drainage systems.

Group drainage annual costs for Tensas River Reach T-3 were discounted at  $3\frac{1}{2}$  percent to account for an estimated 10-year lag in installation. In this area the parish of Tensas has not voted on a bond issue to finance installation of group ditches, so it was thought best to use an estimated 10-year time lag. There would be an additional 10-year lag for full installation, maintenance, and benefit accrual for farm drainage systems in this reach. Therefore all annual costs and benefits were discounted for a 20-year period at 5 percent in Table IX.

Group drainage annual costs for reaches BC-1 and BC-3, Big and Colewa Creeks, were not discounted because it was assumed that these group facilities



would be constructed immediately after the proposed project was installed.

DETERMINATION OF DEGREE OF DEVELOPMENT  
DUE TO THE PROPOSED PROJECT

The Boeuf and Tensas Rivers and Bayou Macon Project authorized by the Flood Control Act of 1944, as amended, is now under construction, and certain of the sub-projects, as described under "Description of Project" were assumed to be complete. Others were assumed to be partially complete, and on the remainder, no work was assumed done.

The proposed project, contains proposals for two extensions to the authorized project. These are Reach T-1, Tensas River, and Reach T-3A, Bayou Vidal. In these two extensions 100% of the benefits will be attributable to the proposed project.

In Big and Colewa Creeks the authorized works of improvement have been completed and were assumed to be fully effective. In the three reaches involved BC-1, BC-2 and BC-3, 100% of the benefits would be attributable to the proposed project. The same situation holds for Reaches BR-4A and BR-4B in the Boeuf River.

In the remaining seven reaches, T-2, T-3, BM-7, BM-8, BM-9, BR-3, and BR-5, either no work has been done under the authorized project or the work that has been done is so recent that no benefits have been derived from it. In either case it was assumed that 100% of the benefits in the zone above overflow with the authorized project in place - the A zone - would be attributable to the authorized project. Therefore the A zone was eliminated from consideration in these reaches.

The B zone benefits will be attributable to both the authorized and the proposed project. In order to facilitate study of these reaches the Corps of Engineers furnished a five-year frequency flow line with the authorized project in operation. Most of the benefits in the area above the 5-year frequency flow line were assigned to the authorized project, and most of the benefits below the 5-year frequency flow line were assigned to the proposed project. These estimates were weighted by acres benefited in the two sub-zones, with the resulting percentage to be applied to the entire B zone to obtain the dollar benefits attributable only to the proposed project. These percentages ranged from 18 to 40 depending on local conditions.

In areas where the authorized project did not provide sufficient facilities to induce farmers to take advantage of the improvements already installed, or to be installed, the percentage of benefits attributable to the proposed project were naturally higher. Determinations were made reach by reach, and project by project, and were the best estimates obtainable from qualified technicians.

SUMMARY

Extensive agricultural development can be expected in the majority of these projects with a small amount of additional group drainage and a large amount of farm drainage, provided adequate outlets as provided by the authorized and proposed projects are constructed. High level farm production can only be assured when adequate drainage is provided by a single system of major outlets, group drainage and farm drainage. This is the major

function of the proposed projects.

Yields for flood-free years have been used throughout this report. The Corps of Engineers, therefore, may need to modify the future without project values to account for flood damage. They may also need to modify future with project values to account for less than complete flood protection under project conditions.

The seven reaches, BC-1, BC-2, BC-3, BR-4A, BR-4B, T-1, and T-3A, were treated as regular MR&T projects, with A, B and C zones studied. All benefits shown are attributable to the proposed project. However, in the seven remaining reaches BR-3, BR-5, T-2, T-3, BM-7, BM-8, and BM-9, special conditions made it necessary to eliminate the A zone. In this group of reaches benefits were developed for both the authorized and the proposed project, and there an estimate was made as to the percent of benefits that would be attributable only to the proposed projects.

The following tabulation shows summaries of benefits and costs for the two groups of reaches, and for the total project.

SUMMARY TABLE

Reaches	Gross Benefits (\$1,000)	Discounted Gross Benefits (\$1,000)	Discounted Associated Costs (\$1,000)	Discounted Net Benefits (\$1,000)	Percent Net Benefits Due To Project	Amount of Benefit Due To Project (\$1,000)
BC-1, BC-2, BC-3, BR-4A, BR-4B, T-1, T-3A	4,135	3,278	1,003	2,275	100	2,275
BR-3, BR-5, T-2, T-3, BM-7, BM-8, BM-9	3,311	2,373	716	1,657	$\frac{1}{28}$	463
Total all Reaches	7,446	5,651	1,719	3,932		2,738

1/ Varies by reaches: this is average for all reaches.





Basin: Boeuf - Tensas Rivers  
 & Bayou Macon  
 Project: Tensas River  
 Reach: T-1  
 State: Louisiana

TABLE I  
PRESENT LAND USE

Zone	Soil map- ping unit	Open (Acres)	Wooded (Acres)	Water (Acres)	Urban (Acres)	Total (Acres)
Zone A	1	13,316	9,435	--	--	22,751
	1U	206	515	--	--	721
	2	10,720	69	--	--	10,789
	2U	9,702	804	--	--	10,506
	5	17,077	205	--	--	17,282
	5U	1,951	60	--	--	2,011
	5S	651	--	--	--	651
	11	3,674	118	--	--	3,792
	12	243	--	--	--	243
Subtotal - all soils		57,540	11,206	--	--	68,746
Water				1,305	--	1,305
Urban					703	703
Total - Zone A		57,540	11,206	1,305	703	70,754
Zone B	1	986	5,112	--	--	6,098
	2	110	--	--	--	110
Subtotal - all soils		1,096	5,112	--	--	6,208
Water				--	--	--
Urban					--	--
Total - Zone B		1,096	5,112	--	--	6,208
TOTAL - Reach T-1		58,636	16,318	1,305	703	76,962

Basin: Boeuf - Tensas Rivers  
 & Bayou Macon  
 Project: Tensas River  
 Reach: T-1  
 State: Louisiana

SUMMARY - TABLE II A  
 (Zone for Drainage Calculations Only)  
 COMPUTATION OF AGRICULTURAL PRODUCTION

(1)	(2)	(3)	(5)	(6)
Land use and crop distribution	Acres 3/	Production		Total
		Unit	per acre 4/	
Open Land	45,237			
Crops:	40,713			
Cotton	7,460	lbs. lint	358	2,670,300
Corn	7,030	bu. seed	34	240,800
Soybeans	8,080	bu.	20	159,390
Oats (Grain)	6,355	bu.	33	212,680
Oats (Sup. Past.)	(2,920)	lbs. beef	152	444,800
Soybeans (Fol-				
lowing Oats)	( 880)	bu.	16	13,850
Perm. Pasture	10,244	lbs. beef	225	2,300,100
Idle	1,544			
Other 2/	4,524			
Woodland	11,206			
Total 1/	56,443			

- 1/ Total does not include 12,303 acres already drained.  
 2/ Farmsteads, farm roads, waste and non-agricultural.  
 3/ Parenthetical amounts are duplicated acreages.  
 4/ Calculated from columns 2 and 5; rounded to nearest unit.

SUMMARY - TABLE III A  
(Zone for Drainage Calculations Only)  
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT (Based on projected prices)

Basin: Boeuf - Tensas Rivers  
& Bayou Macon  
Project: Tensas River  
Reach: T-1  
State: Louisiana

(1) Land use and crop distribution	(2) Acres	(3) Production		(5) Total	(6) Value of production		(8) Cost of production		(9) Total	(10) Net Return
		Unit	Per Acre		Per unit	Dollars	Per acre	Dollars		
Open Land	24,028		5/							
CROPS:	21,625									
Cotton	1,575	lbs.	316	498,250	Lint+Seed .3045	151,692	91.41	143,969	9,858	2/
Corn	4,690	bu.	29	137,900	1.50	206,850	28.02	131,437	75,413	
Soybeans	5,795	bu.	16	92,615	2.50	231,688	21.84	126,562	105,126	
Oats (grain)	4,245	bu.	29	122,380	.95	116,261	21.33	90,536	25,725	
Oats (sup.past.)	(2,035)	lbs.beef	120	244,000	0.184	44,896	10.73	21,842	23,054	
Soybeans (Fol- lowing oats)	( 390)	bu.	13	5,150	2.50	12,875	20.19	7,874	5,001	
Perm. Pasture	4,750	lbs.beef	201	956,500	0.184	175,996	19.26	91,508	84,488	
Idle	571									
Other	2,402									
Woodland	7,077					58,739	4.85	34,324	24,415	
Total	31,105					998,997		648,052	353,080	

- 1/ Total does not include 12,303 acres already drained; 19,334 acres expected to be drained, future without project; 4,085 acres open land not expected to participate in drainage program; 1,919 acres to remain in woodland.
- 2/ Adjusted to eliminate negative net returns of \$2,135.
- 3/ Farmsteads, farm roads, waste and non-agricultural.
- 4/ Parenthetical amounts are duplicated acreages.
- 5/ Calculated from columns 2 & 5; rounded to nearest unit.
- 6/ Calculated from columns 2 & 9 rounded to nearest cent.



SUMMARY - TABLE IVA  
(Zone for Drainage Calculations Only)  
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT (Based on projected prices)

Basin: Boeuf - Tensas Rivers  
& Bayou Macon  
Project: Tensas River  
Reach: T-1  
State: Louisiana

(1) Land use and Crop Distribution	(2) Acres	(3) Unit		(4) Production Per acre		(5) Total		(6) Value of (7) Production Per unit		(8) Cost of (9) Production Per Acre		(10) Net Return	
								Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
Open Land	31,105												
Crops: 6/ 7/	27,995							Lint+Seed					
Cotton	1,675	lbs.		565		947,000		30445		288,315	145.63	243,927	44,388
Corn	4,270	bu.		60		254,980		1.50		382,470	48.05	205,168	177,302
Soybeans	9,240	bu.		35		322,600		2.50		806,500	35.80	330,769	475,731
Oats (Grain)	7,400	bu.		60		442,400		.95		420,280	35.75	264,534	155,746
Oats (Sup.Past.)	(4,905)	lbs.beef		244		1,194,850		0.184		219,852	23.14	113,517	106,335
Soybeans(Fol-lowing Oats)	(2,150)	bu.		24		50,600		2.50		126,501	38.26	69,351	57,150
Perm. Pasture	5,300	lbs.beef		408		2,160,000		0.184		397,440	38.90	206,167	191,273
Idle	110												
Other 2/	3,110												
Woodland	0												
Total 1/	31,105									2,641,358		1,433,433	1,207,925

1/ Total does not include 12,303 acres already drained, 19,334 acres expected to be drained, future without project; 4,085 acres open land not expected to participate in drainage program; 1,919 acres to remain in woodland.

2/ Farmsteads, farm roads, waste and non-agricultural.

3/ Parenthetical amounts are duplicated acreages.

4/ Calculated from columns 2 and 5; rounded to nearest unit.

5/ Calculated from columns 2 and 9; rounded to nearest cent.

6/ DRAINED: Cotton 80%; Corn 82%; Soybeans 100%; Oats (gr.) 100%; Oats (Sup.Past.) 100%; Soybeans (Fol. Oats) 84%; Perm. Pasture 83%.

7/ IRRIGATED: Cotton 20%; Corn 18%; Soybeans (Fol. Oats) 16%; Perm. Pasture 17%.



Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
 Project: Tensas River  
 Reach: T-1  
 State: Louisiana

SUMMARY - TABLE II B  
 (Zone for Drainage and Flood Control Calculations)  
 COMPUTATION OF AGRICULTURAL PRODUCTION

(1) Land Use and Crop Distribution	(2) Acres	(4) Production			(5) Total
		(3) Unit	Per Acre		
Open Land	2/ 1,096		3/		
Crops:	986				
Cotton	275	lbs.	270		74,250
Corn	155	bu.	31		4,740
Soybeans	180	bu.	19		3,380
Oats (Grain)	39	bu.	32		1,242
Oats (Sup. Past.)	(15)	lbs.beef	140		2,100
Soybeans (Fol- lowing Oats)	( 5)	bu.	11		55
Perm. Pasture	330	lbs.beef	205		67,500
Idle	7				
Other 1/	110				
Woodland	5,112				
Total	6,208				

- 1/ Farmsteads, farm roads, waste and non-agricultural.  
 2/ Parenthetical amounts are duplicated acreages.  
 3/ Calculated from columns 2 and 5; rounded to nearest unit.

SUMMARY - TABLE III B  
(Zone for Drainage and Flood Control Calculations)  
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRO-  
DUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT  
(Based on projected prices)

Basin: Boeuf - Tensas Rivers  
& Bayou Macon  
Project: Tensas River  
Reach: T-1  
State: Louisiana

(1) Land Use and Crop Distribution	(2) Acres 7/	(3) Unit	(4) Production Per Acre	(5) Total	(6) Value of Production Per unit Dollars	(7) Total	(8) Cost of Production Per acre Dollars	(9) Total	(10) Net Return Dollars
Open Land <u>5/</u> Crops: <u>6/</u>	1,346 1,211		<u>3/</u>				<u>4/</u>		
Cotton	225	lbs.	289	65,000	Lint+seed 304.45	19,789	85.97	19,343	446
Corn	265	bu.	33	8,690	1.50	13,035	30.69	8,132	4,903
Soybeans	220	bu.	20	4,380	2.50	10,950	26.00	5,721	5,229
Oats (Grain)	144	bu.	33	4,804	.95	4,564	23.62	3,401	1,163
Oats (Sup. Past.)	(40)	lbs. beef	143	5,700	0.184	1,048	13.18	527	521
Soybeans (Fol- lowing Oats)	(15)	bu.	15	225	2.50	563	22.60	339	224
Perm. Pasture	350	lbs. beef	226	79,250	0.184	14,582	22.33	7,817	6,765
Idle	7								
Other <u>2/</u>	135								
Woodland	3,890				8.30	32,287	4.85	18,867	13,420
TOTAL <u>1/</u>	5,236					96,818		64,147	32,671

1/ Total does not include 972 acres to remain in woodland.  
2/ Farmsteads, farm roads, waste and non-agricultural.  
3/ Calculated from columns 2 and 5; rounded to nearest unit.  
4/ Calculated from columns 2 and 9; rounded to nearest cent.  
5/ DRAINAGE: Cotton 28%; Corn 28%; Soybeans 31%; Oats (gr.) 31%;  
Oats (Sup. Past.) 34%; Soybeans (following Oats 30%; Permanent  
Pasture 28%.

6/ IRRIGATED: Cotton 4%; Corn 3%; Soybeans  
(following Oats) 5%; Permanent Pasture  
3%.  
Parenthetical amounts are duplicated  
acres.

SUMMARY - TABLE IV B

(Zone for Drainage and Flood Control Calculations)  
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT projected prices)

Basin: Boeuf - Tensas Rivers  
 & Bayou Macon  
 Project: Tensas River  
 Reach: T-1  
 State: Louisiana

(1) Land use and crop Distribution	(2) Acres	(3) Unit		(4) Production		(5) Total		(6) Value of (7) Production		(8) Cost of (9) Production		(10) Net Return	
		Unit	Per acre	Per unit	Total	Per unit	Total	Per unit	Total	Per unit	Total	Per unit	Total
Open Land	5,236												
Crops: <u>2/</u> <u>6/</u>	4,712												
Cotton	420	lbs.	438	Lint+Seed	183,800	30¢	55,958	118.21	49,619	6.309	24,344		
Corn	815	bu.	46		37,760	1.50	56,640	39.63	32,296	24,344			
Soybeans	2,040	bu.	29		59,560	2.50	148,900	32.15	65,596	83,304			
Oats (Grain)	759	bu.	52		39,576	.95	37,597	32.85	24,936	12,661			
Oats (Sup. Past.)	(409)	lbs. beef	202		82,430	0.184	15,167	19.48	7,967	7,200			
Soybeans (Foll- owing oats)	(255)	bu	18		4,655	2.50	11,638	26.70	6,809	4,829			
Perm. Pasture	665	lbs. beef	342		227,450	0.184	41,851	32.09	21,337	20,514			
Idle	13												
Other <u>2/</u>	524												
Woodland	0												
TOTAL <u>1/</u>	5,236						367,751		208,590		159,161		

- 1/ Does not include 972 acres to remain in woodland.
- 2/ Farmsteads, farm roads, waste and non-agricultural.
- 3/ Calculated from columns 2 and 5; rounded to nearest unit.
- 4/ Calculated from columns 2 and 9; rounded to nearest cent.
- 5/ DRAINED: Cotton 77%; Corn 77%; Soybeans 86%; Oats (Gr.) 86%; Oats (Sup. Past.) 86%; Soybeans (following oats) 77%; Permanent Pasture 77%.
- 6/ IRRIGATED: Cotton 9%; Corn 9%; Soybeans (following Oats) 9%; Permanent Pasture 9%.
- 7/ Parenthetical amounts are duplicated acreages.



TABLE V  
SUMMARY BY SOIL MAPPING UNITS

Basin: Doeuf, Tensas Rivers  
& Bayou Macon  
Project: Tensas River  
Reach: T-1  
State: Louisiana

Soil Unit	Acres	Future without project (Value of production in dollars)			Future with project (Value of production in dollars)			Difference in net value
		Gross	Cost	Net 1/	Gross	Cost	Net 1/	
1 1U	15,629	308,111	Zone A (Not Subject to Flooding)	105,500	1,205,748	651,380	554,368	448,868
2	492	7,397	4,364	3,033	35,623	17,942	17,681	14,648
2U	6,816	308,271	210,493	97,778	685,114	384,315	300,799	203,021
5U	6,933	305,823	185,665	121,158	609,088	322,267	286,821	165,663
	1,185	68,395	42,784	25,611	105,785	57,529	48,256	22,645
Subtotal 2/	31,105	998,997	648,052	353,080	2,641,358	1,433,433	1,207,925	854,845
1	5,126	88,272	Zone B (Subject to Flooding)	29,830	356,249	201,954	154,295	124,465
2	110	8,546	5,705	2,841	11,502	6,636	4,866	2,025
Subtotal 3/	5,236	96,818	64,147	32,671	367,751	208,590	159,161	126,490
TOTAL	36,341	1,095,815	712,199	385,751	3,009,109	1,642,023	1,367,086	981,335

1/ Adjusted for negative net returns of \$2,135 Table III A,

2/ Does not include 12,303 acres of drained land; 19334 acres to be drained without project; 3,242 acres not expected to participate in drainage program; 1,919 acres to remain in woodland and 843 acres of converted woodland not expected to be drained in Zone A. Total Zone A: 68,746 acres plus 1,305 acres water and 703 acres urban = 70,754 acres.

3/ Does not include 972 acres to remain in woodland. Total Zone B: 6,208 acres.

TABLE VI  
LAND CONVERSION COSTS WITH PROJECT

Basin: Boeuf - Tensas Rivers  
& Bayou Macon  
Project: Tensas River  
Reach: T-1  
State: Louisiana

Type of Conversion	Total Acres	Cost of Clearing Dollars	Cost of Smoothing Dollars	Cost of Pasture Establishment Dollars	Total Cost Dollars
Woods to Other Land	1,097	65,820	-	-	65,820
Woods to General Crops	8,705	522,300	17,410	-	539,710
Woods to Pasture	1,165	69,900	-	39,610	109,510
Pasture to General Crops	300	-	600	-	600
Pasture to Irrigated Crops	-	-	-	-	-
(Rice Only)	-	-	-	-	-
General Crops to Irrigated Crops	-	-	-	-	-
General Crops to Pasture	-	-	-	-	-
Pasture to Improved Pasture	4,800	-	-	-	76,800
TOTAL FOR REACH T-1.					792,440
Annual Amortized Value (.05478)					43,410
Annual Maintenance of Converted Pasture	1,165				13,980
Annual Maintenance of Improved Pasture	4,800				38,400

TABLE VII  
ANALYSIS OF FARM DRAINAGE SYSTEM COSTS

Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
Project: Tensas River  
Reach: T-1  
State: Louisiana

Soil Mapping Unit and Land Use	Area  Acres	Construction Cost		Engineer- ing Cost	Contin- gency Cost	Total Cost Installation	Annual Equi- valent Inst. Cost $\frac{1}{2}$	Annual Mainte- ance Cost	Total Annual Cost
		Per Acre	Total						
1, & 1U - Cropland Pasture	15,540 2,602	15.18 8.34	235,897 21,701	47,179 4,340	23,590 2,170	306,666 28,211	24,607 2,264	35,385 651	59,992 2,915
2 & 2U - Cropland Pasture	9,541 2,927	13.08 8.34	124,796 24,411	24,959 4,882	12,480 2,441	162,235 31,734	13,018 2,546	18,719 732	31,737 3,278
5S - Cropland Pasture	777 290	11.56 7.29	8,982 2,114	1,796 423	898 211	11,676 2,748	937 220	1,347 63	2,284 283
TOTAL	31,677		417,901	83,579	41,790	543,270	43,592	56,897	100,489

$\frac{1}{2}$  Amortized at 5% for 20 year period (.08024).



Basin: Boeuf-Tensas Rivers  
& Bayou Macon

Project: Tensas River

Reach: T-1

State: Louisiana

TABLE IX  
SUMMARY OF ANNUAL NET PRODUCTION RETURNS  
AND ASSOCIATED COSTS

(1) Item	(2) Total	(3) Discounted Amount
	<u>Dollars</u>	<u>Dollars</u>
1. Net Return with project	1,367,086	
2. Net Return without project	385,751	
3. Gross Benefit to project	981,335	777,953
4. Farm Drainage Cost		
(a) Installation Cost	43,592	
(b) Maintenance Cost	56,897	
(c) Total Cost	100,489	79,663
5. Group Drainage Cost		
(a) Installation Cost	0	
(b) Maintenance Cost	0	
(c) Total Cost	0	0
6. Conversion Cost		
(a) Installation Cost	43,410	
(b) Maintenance Cost	52,380	
(c) Total Cost	95,790	75,938

Basin: Boeuf - Tensas Rivers  
 \* Bayou Macon  
 Project: Tensas River  
 Reach: T-2  
 State: Louisiana

TABLE I  
 PRESENT LAND USE

Zone	Soil Map- ping Unit	Open	Wooded	Water	Urban	Total
		<u>Acres</u>	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>
Zone B	1	3,796	37,436	-	-	41,232
	1s	725	2,356	-	-	3,081
	1lsu 1/	-	934	-	-	934
	2	131	333	-	-	464
	5	65	-	-	-	65
Subtotal - all soils		4,717	41,059	-	-	45,776
Water				-		-
Urban					-	-
Total - Zone B		4,717	41,059	-	-	45,776
Zone C	1	1,104	6,002	-	-	7,106
	1s	153	1,260	-	-	1,413
	lsu	181	697	-	-	878
Subtotal - all soils		1,438	7,959	-	-	9,397
Water				-		-
Urban					-	-
Total - Zone C		1,438	7,959	-	-	9,397
TOTAL - REACH T-2		6,155	49,018	-	-	55,173

1/ Soil units 1s and lsu combined as 1s.



Basin: Boeuf - Tensas Rivers  
 & Bayou Macon  
 Project: Tensas River  
 Reach: T-2  
 State: Louisiana

SUMMARY - TABLE II B  
 (Zone for Drainage and Flood Control Calculations)  
 COMPUTATION OF AGRICULTURAL PRODUCTION

(1) Land Use and Crop Distribution	(2) Acres 3/	(4) Production		(5) Total
		(3) Unit	(4) Per acre 4/	
Open Land	4,717			
Crops:	4,244			
Cotton	683	lbs.	262	178,960
Corn	610	bu.	31	18,720
Soybeans	600	bu.	17	10,300
Oats (Grain)	445	bu.	30	13,220
Oats (Sup. Past.)	(150)	lbs.beef	117	17,500
Soybeans (Fol- lowing Oats)	(40)	bu.	10	390
Perm. Pasture	1,784	lbs.beef	197	351,410
Idle	122			
Other 2/	473			
Woodland	15,041			
Total 1/	19,758			

- 1/ Total does not include 26,018 acres dedicated land.  
 2/ Farmsteads, farm roads, waste and non-agricultural.  
 3/ Parenthetical amounts are duplicated acreages.  
 4/ Calculated from columns 2 and 5; rounded to nearest unit.

SUMMARY - TABLE III B  
(Zone for Drainage and Flood Control Calculations)  
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT  
(Based on projected prices)

Basin: Boeuf - Tensas Rivers  
& Bayou Macon  
Project: Tensas River  
Reach: T-2  
State: Louisiana

(1) Land use and Crop Distribution	(2) Acres 8/	(3) Production		(5) Total	(6) Value of Production		(8) Cost of Production		(9) Total	(10) Net Return Dollars
		Unit	Per Acre		Per Unit Dollars	Total Dollars	Per Acre Dollars	Total Dollars		
Open Land	5,127		3/				4/			
Crops: 6/ 7/	4,613				Lint+Seed .30445	35,103	83.90	34,397	706	
Cotton	410	1bs.	281	115,300		35,205	29.28	22,249	(839) 5/	
Corn	760	bu.	31	23,470	1.50	42,453	24.54	22,923	12,956	
Soybeans	934	bu.	18	16,981	2.50	14,954	21.76	11,533	19,530	
Oats (Gr.)	530	bu.	30	15,740	.95	4,149	10.54	2,002	3,421	
Oats (Sup, Past.)	(190)	lbs.beef	119	22,550	0.184				2,147	
Soybeans (Fol- lowing Oats)	(50)	bu.	11	570	2.50	1,426	18.86	943	483	
Perm. Pasture	1,884	lbs.beef	200	377,180	0.184	69,401	19.60	36,920	32,481	
Idle	95									
Other 2/	514									
Woodland	11,136				7.22	80,402	4.34	48,330	32,072	
TOTAL	16,263					283,093		179,297	103,929	

- 1/ Total does not include 3,495 acres to remain in woodland and 26,018 acres dedicated woodland.
- 2/ Farmsteads, farm roads, waste and non-agricultural.
- 3/ Calculated from columns 2 and 5; rounded to nearest unit.
- 4/ Calculated from columns 2 and 9; rounded to nearest cent.
- 5/ Adjusted net return to eliminate the effect of negative returns
- 6/ ALL negative net returns were considered as zero.
- 7/ DRAINAGE: Cotton 2%; Corn 2%; Soybeans 21%; Oats (Grain) 20%; Oats (Sup, Past.) 20%; Soybeans (Following Oats) 16%; Permanent Pasture 20%.
- 8/ Parenthetical amounts are duplicated acreages.



# SUMMARY - TABLE IV B

(Zone for Drainage and Flood Control Calculations)  
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION,  
PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH  
PROJECT (Based on projected prices)

Basin: Boeuf - Tensas Rivers  
& Bayou Macon  
Project: Tensas River  
Reach: T-2  
State: Louisiana

(1) Land Use and Crop Distribution	(2) Acres	(3) Unit	(4) Production Per Acre	(5) Total	(6) Value of Production Per unit	(7) Total	(8) Cost of Production Per acre	(9) Total	(10) Net Return Dollars
Open Land	16,263								
Crops: 5/ 6/	14,637								
Cotton	835	lbs.	427	356,350	Lint+Seed 30445	108,490	116.48	97,261	11,229
Corn	2,500	bu.	47	116,290	1.50	174,435	40.29	100,730	73,705
Soybeans	5,485	bu.	29	156,445	2.50	391,113	31.72	174,004	217,109
Oats (Grain)	2,800	bu.	51	141,940	.95	134,843	32.31	90,470	44,373
Oats (Sup. Past.)	(2,195)	lbs. beef	194	425,650	0.184	78,320	18.66	40,955	37,365
Soybeans (Fol- lowing Oats	( 915)	bu.	18	16,650	2.50	41,625	27.18	24,862	16,763
Perm. Pasture	2,808	lbs. beef	341	958,880	0.184	176,433	32.39	90,948	85,485
Idle	209								
Other	1,626								
Woodland	0								
TOTAL	16,263					1,105,259		619,230	486,029

1/ Total does not include 3,495 acres to remain in woodland and 26,018 acres dedicated woodland.  
2/ Farmsteads, farm roads, waste and non-agricultural.  
3/ Calculated from columns 2 and 5; rounded to nearest unit.  
4/ Calculated from columns 2 and 9; rounded to nearest cent.  
5/ DRAI NED: Cotton 70%; Corn 70%; Soybeans 82%; Oats (Grain) 82%; Oats (Sup. Past.) 82%; Permanent Pasture 70%; Soybeans (Following Oats) 70%.  
6/ IRRIGATED: (Drained) Cotton 12%; Corn 12% Soybeans (Following Oats) 11%; Permanent Pasture 12%.  
7/ Parenthetical amounts are duplicated acreages.

Basin: Boeuf - Tensas Rivers  
& Bayou Macon  
 Project: Tensas River  
 Reach: T-2  
 State: Louisiana

SUMMARY - TABLE II C  
 (Zone of No Project Benefit)  
 COMPUTATION OF AGRICULTURAL PRODUCTION: EXISTING CONDITIONS

(1) Land use and crop Distribution	(2) Acres <u>2 /</u>	(3) Unit	(4) Production Per acre <u>3 /</u>	(5) Total
Open Land	1,438			
Crops:	1,295			
Cotton	179	lbs.	230	41,120
Corn	200	bu.	27	5,400
Soybeans	210	bu.	15	3,150
Oats (Grain)	165	bu.	25	4,160
Oats (Sup. Past.)	(50)	lbs. beef	120	6,000
Soybeans (Fol- lowing Oats)	(10)	bu.	9	90
Perm. Pasture	520	lbs. beef	170	88,400
Idle	21			
Other <u>2 /</u>	143			
Woodland	7,959			
Total	9,397			

- 1 / Farmsteads, farm roads, waste and non-agricultural.  
2 / Parenthetical amounts are duplicated acreages.  
3 / Calculated from columns 2 and 5; rounded to nearest unit.



SUMMARY - TABLE III & IV C  
(Zone of No project Benefit)  
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION,  
PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT  
PROJECT (Based on projected prices)

Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
Project: Tensas River  
Reach: T-2  
State: Louisiana

(1) Land Use and Crop Distribution	(2) Acres 3/	(3) Unit	(4) Production Per Acre 4/	(5) Total	(6) Value of Production Per unit Dollars	(7) Total	(8) Cost of Production Per acre Dollars	(9) Total	(10) Net Return Dollars
Open Land	1,438								
Crops:	1,295								
Cotton	95	lbs.	233	22,100	304.45	6,727	73.88	7,019	-292
Corn	258	bu.	27	6,940	1.50	10,410	26.59	6,861	13,549
Soybeans	290	bu.	15	4,350	2.50	10,875	21.80	6,322	4,553
Oats (Grain)	165	bu.	25	4,160	.95	3,952	19.50	3,217	735
Oats (Sup. Past.)	(70)	lbs. beef	100	7,000	0.184	1,288	8.60	602	686
Soybeans (Fol- lowing Oats)	(25)	bu.	9	225	2.50	563	16.40	410	153
Perm. Pasture	470	lbs. beef	170	79,900	0.184	14,701	16.12	7,577	7,124
Idle	17								
Other 2/ Woodland	143 0								
TOTAL 1/	1,438					48,516		32,008	16,838 6/

1/ Total does not include 7,959 acres of woodland, as no conversion and/or benefits are expected.  
2/ Farmsteads, farm roads, waste and non-agricultural.  
3/ Parenthetical amounts are duplicated acreages.  
4/ Calculated from columns 2 and 5; rounded to nearest unit.  
5/ Calculated from columns 2 and 9; rounded to nearest cent.  
6/ Adjusted net return to eliminate the effect of negative returns.  
All negative net returns were considered as zero.

TABLE V  
SUMMARY BY SOIL MAPPING UNITS

Basin: Boeuf -Tensas Rivers  
& Bayou Macon  
Project: Tensas River  
Reach: T-2  
State: Louisiana

Soil Unit	Acres	Future without project (Value of production in dollars)		Future with project 3/ (Value of production in dollars)		Difference in net value
		Gross	Cost	Gross	Cost	
1 1S	14,187	257,499	163,436	517,638	394,799	300,273
1SU	2,834	50,286	33,110	106,077	83,415	66,239
2	181	6,268	4,044	4,044	2,224	0
5	434	11,243	7,005	19,437	19,513	15,275
	65	6,313	3,710	4,042	2,916	313
TOTAL 2/	17,701	331,609	211,305	1,153,775	651,238	382,100

1/ Adjusted for negative net returns of \$133 in table III B and \$330 in table III C.

2/ Does not include 26,018 acres dedicated to woodland and 3,495 acres to remain in woodland in Zone B.

3/ Total Zone B - 45,776 acres.

Does not include 7,959 acres to remain in woodland in Zone C. Total Zone C - 9,397 acres.

Includes Zone C which is assumed to be the same as future conditions without project.

4/ No Zone A Benefits.



TABLE VI  
LAND CONVERSION COSTS WITH PROJECT

Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
Project: Tensas River  
Reach: T-2  
State: Louisiana

(1) Type of Conversions	(2) Total Acres	(3) Cost of Clearing Dollars	(4) Cost of Smoothing Dollars	(5) Cost of Pasture Establishment Dollars	(6) Total Cost Dollars
Woods to Other Land	1,114	66,840	0	0	66,840
Woods to General Crops	9,086	545,160	21,364	0	566,524
Woods to Pasture	936	56,160	0	27,144	83,304
Pasture to General Crops	12	0	24	0	24
Pasture to Improved Pasture	1,872	0	0	0	20,592
TOTAL FOR REACH T-2					737,284
Annual Amortized Value (.05478)					40,388
Annual Maintenance of Converted Pasture	936				8,986
Annual Maintenance of Improved Pasture	1,872				10,483

TABLE VII  
ANALYSIS OF FARM DRAINAGE SYSTEM COSTS

Basin: Boeuf-Tensas Rivers  
E. Bayou Macon  
 Project: Tensas River  
 Reach: T-2  
 State: Louisiana

Soil Mapping Unit and Land Use	Area	Construction Cost		Engineer- ing Cost	Contin- gency Cost	Total Cost Installa- tion	Annual Equi- valent Inst. Cost 1/	Annual Main- tenance Cost	Total Annual Cost
		Acres	Per Acre Dollars						
1 & 1S - Cropland Pasture	8,625 2,092	15.18 8.34	130,928 17,447	26,186 3,489	13,093 1,745	170,207 22,681	22,042 2,937	19,639 524	41,681 3,461
2 - Cropland Pasture	288 34	13.08 8.34	3,767 284	753 57	377 28	4,897 369	634 48	565 9	1,199 57
5 - Cropland Pasture	7 1	11.56 7.29	81 7	16 1	8 1	105 9	14 1	12 0	26 1
Total	11,047		152,514	30,502	15,252	198,268	25,676	20,749	46,425

1/ Amortized at 5% for 10 year period (.12950).



Basin: Boeuf - Tensas Rivers  
          & Bayou Macon

Project: Tensas River

Reach: T-2

State: Louisiana

TABLE IX  
SUMMARY OF ANNUAL NET PRODUCTION RETURNS  
AND ASSOCIATED COSTS

(1) Item	(2) Total	(3) Discounted Amount
	<u>Dollars</u>	<u>Dollars</u>
1. Net Return with Project	486,029	
2. Net Return without Project	103,929	
3. Gross Benefits to Project	382,100	302,910
4. Farm Drainage Cost		
(a) Installation Cost	25,676	
(b) Maintenance Cost	20,749	
(c) Total Cost	46,425	36,803
5. Group Drainage Cost		
(a) Installation Cost	0	
(b) Maintenance Cost	0	
(c) Total Cost	0	
6. Conversion Cost		
(a) Installation Cost	40,388	
(b) Maintenance Cost	19,469	
(c) Total Cost	59,857	47,452
7. Gross benefit to authorized and proposed projects		302,910
8. Less Associated Costs		84,255
9. Net return to authorized and proposed projects		218,655
10. Net return times 27% attributable to proposed project		59,037

Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
Project: Tensas River  
Reach: T-3  
State: Louisiana

TABLE I  
Present Land Use

Zone	Soil Mapping Unit	Open	Wooded	Water	Urban	Total
		<u>Acres</u>	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>
Zone B	1	8,359	80,611	-	-	88,970
	1U	2,184	18,527	-	-	20,711
	2	8,287	431	-	-	8,718
	2U	6,875	1,164	-	-	8,039
	2SU	519	154	-	-	673
	5	997	51	-	-	1,048
	5S	352	32	-	-	384
	5U	3,246	551	-	-	3,797
	5SU	199	-	-	-	199
Subtotal - all soils		31,018	101,521	-	-	132,539
Water				-		-
Urban					-	-
Total - Zone B		31,018	101,521	-	-	132,539
Zone C	1	455	37,492	-	-	37,947
	1a	-	1,246	-	-	1,246
	1U	531	6,512	-	-	7,043
	2	26	19	-	-	45
	2SU	150	690	-	-	840
	5	19	-	-	-	19
	5U	76	-	-	-	76
	5SU	835	-	-	-	835
Subtotal - all soils		2,092	45,959	-	-	48,051
Water				2,087		2,087
Urban					-	-
Total - Zone C		2,092	45,959	2,087	-	50,138
TOTAL - REACH T-3		33,110	147,480	2,087	-	182,677



Basin: Boeuf - Tensas Rivers  
 & Bayou Macon  
 Project: Tensas River  
 Reach: T-3  
 State: Louisiana

SUMMARY - TABLE II B  
 (Zone for Drainage and Flood Control Calculations)  
 COMPUTATION OF AGRICULTURAL PRODUCTION

(1) Land Use and Crop Distribution	(2) Acres <u>3/</u>	(4) Production		(5) Total
		(3) Unit	Per Acre	
Open Land	31,018		<u>4/</u>	
Crops:	27,916			
Cotton	4,050	lbs.	350	1,419,200
Corn	2,990	bu.	36	107,300
Soybeans	5,550	bu.	22	119,500
Oats (Grain)	3,545	bu.	35	123,970
Oats (Sup. Past.)	(1,555)	lbs. beef	153	237,500
Soybeans (Fol- lowing Oats)	(460)	bu.	16	7,230
Perm. Pasture	10,973	lbs. beef	233	2,557,220
Idle	808			
Other <u>2/</u>	3,102			
Woodland	55,305			
TOTAL <u>1/</u>	86,323			

- 1/ Total does not include 46,216 acres dedicated land.  
2/ Farmsteads, farm roads, waste and non-agricultural.  
3/ Parenthetical amounts are duplicated acreages.  
4/ Calculated from columns 2 and 5; rounded to nearest unit.

SUMMARY - TABLE III B  
(Zone for Drainage and Flood Control Calculations  
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRO-  
DUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT  
PROJECT (Based on projected prices)

Basin: Boeuf - Tensas Rivers  
& Bayou Macon  
Project: Tensas River  
Reach: T-3  
State: Louisiana

Land Use and Crop Distribution	Acres	Production		Value of Production		Cost of Production		Net Return
		Unit	Per Acre	Total	Per Unit	Total	Per Acre	
Open Land	31,873		3/				4/	
Crops: 6/ 7/	28,685				Lint+Seed			37,278
Cotton	3,858	lbs.	369	1,422,400	.30445	433,049	102.58	(38,029) 5/
Corn	3,440	bu.	38	129,270	1.50	193,905	33.42	78,925
Soybeans	6,789	bu.	22	150,119	2.50	375,298	27.43	186,226
Oats (Grain)	4,285	bu.	36	152,280	.95	144,666	24.73	105,961
Oats (Sup.Past.)	(2,095)	lbs.beef	154	322,450	0.184	59,331	14.38	30,121
Soybeans (Fol- lowing Oats)	(725)	bu.	16	11,870	2.50	29,676	23.53	17,062
Perm. Pasture	9,533	lbs.beef	246	2,344,260	0.184	431,344	23.68	225,753
Idle	780							
Other 2/	3,188				6.29	203,525	3.73	120,691
Woodland	32,357							82,834
TOTAL 1/	64,230					1,870,794		1,196,565
								674,980 5/

1/ Total does not include 22,093 acres to remain in woodland, 46,216 acres of dedicated woodland.

2/ Farmsteads, farm roads, waste and non-agricultural.

3/ Calculated from columns 2 and 5; rounded to nearest unit.

4/ Calculated from columns 2 and 9; rounded to nearest cent.

5/ Adjusted net return to eliminate the effect of negative returns. All negative net returns were considered as zero.

6/ DRAINED: Cotton 16%; Corn 16%; Soybeans 20%; Oats (gr.) 20%; Oats(Sup.Past.) 20%; Soybeans (Fol. Oats) 16%;

Perm. Pasture 16%.

7/ IRRIGATED (Drained): Cotton 3%; Corn 3%; Soybeans (Fol. Oats) 3%; Permanent Pasture 3%.

8/ Parenthetical amounts are duplicated acreages.



SUMMARY - TABLE IV B  
(Zone for Drainage and Flood Control Calculations)  
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRO-  
DUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT  
(Based on projected prices)

Basin: Boeuf - Tensas Rivers  
& Bayou Macon  
Project: Tensas River  
Reach: T-3  
State: Louisiana

(1) Land use and crop Distribution	(2) Acres 7/	(3)		(4) Production	(5)	(6) Value of production		(7)	(8) Cost of production		(9)	(10) Net Return
		Unit	Per acre	Total		Dollars	Dollars	Total	Per acre	Total	Dollars	Dollars
Open Land	64,230		3/			Lint+Seed 30.45			4/			
Crops: 5/ 6/	57,806											
Cotton	3,590	lbs.	537	1,929,000			587,285	138.83		498,404	88,881	
Corn	13,070	bu.	53	686,700		1.50	1,030,140	43.86		573,201	456,939	
Soybeans	17,639	bu.	32	556,046		2.50	1,390,115	33.64		593,371	796,744	
Oats (Grain)	12,028	bu.	55	662,272		.95	629,158	33.97		408,552	220,606	
Oats (Sup. Past)	(7,655)	lbs. beef	222	1,701,700		0.184	313,112	21.19		162,239	150,873	
Soybeans (Fol- lowing Oats)	(3,900)	bu.	20	77,155		2.50	192,888	27.97		109,093	83,795	
Perm. Pasture	10,468	lbs. beef	363	3,802,290		0.184	699,621	33.95		355,417	344,204	
Idle	1,011											
Other	6,424											
Woodland	0											
Total	1/ 64,230						4,842,319			2,700,277	2,142,042	

- 1/ Total does not include 22,093 acres to remain in woodland, and 46,216 acres of dedicated woodland.
- 2/ Farmsteads, farm roads, waste and non-agricultural.
- 3/ Calculated from columns 2 and 5; rounded to nearest unit.
- 4/ Calculated from columns 2 and 9; rounded to nearest cent.
- 5/ DRAINED: Cotton 73%; Corn 73%; Soybeans 86%; Oats (gr.) 86%; Oats (Sup. Past.) 86%; Soybeans (Fol. Oats) 74%; Permanent Pasture 74%.
- 6/ IRRIGATION: Cotton 15%; Corn 14%; Permanent (Drain.) Pasture 12%; Soybeans Fol. Oats 13%.
- 7/ Parenthetical amounts are duplicated acreages.

Basin: Boeuf - Tensas Rivers  
& Bayou Macon

Project: Tensas River

Reach: T-3

State: Louisiana

SUMMARY - TABLE II C  
 (Zone of No Project Benefit)  
 COMPUTATION OF AGRICULTURAL PRODUCTION: EXISTING CONDITIONS

(1) Land Use and Crop Distribution	(2) Acres <u>1/</u>	(3) <u>Unit</u>	(4) Production Per Acre	(5) Total
Open Land	2,092		<u>3/</u>	
Crops:	1,883			
Cotton	278	lbs.	365	101,380
Corn	223	bu.	34	7,610
Soybeans	343	bu.	19	6,566
Oats (Grain)	247	bu.	33	8,162
Oats (Sup.Past.)	(130)	lbs.beef	145	18,850
Soybeans (Fol- lowing Oats)	( 25)	bu.	18	445
Perm . Pasture	739	lbs.beef	230	169,952
Idle	53			
Other <u>2/</u>	209			
Woodland	45,959			
TOTAL	48,051			

1/ Parenthetical amounts are duplicated acreages.

2/ Farmsteads, farm roads, waste and non-agricultural.

3/ Calculated from columns 2 and 5; rounded to nearest unit.



SUMMARY - TABLE III & IV C  
(Zone of No Project Benefit)  
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION,  
PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT  
PROJECT (Based on projected prices)

Basin: Boeuf - Tensas Rivers  
& Bayou Macon  
Project: Tensas River  
Reach: T-3  
State: Louisiana

(1) Land Use and Crop Distribution	(2) Acres 6/	(3) Unit	(4) Production Per Acre	(5) Total	(6) Value of production Per unit	(7) Total	(8) Cost of production Per acre	(9) Total	(10) Net Return
Open Land	2,092		3/						
Crops:	1,883				Lint+Seed		4/		1,746
Cotton	180 lbs.		365	65,700	:30445	20,002	101.42	18,256	(2,006) 5/
Corn	286 bu.		34	9,840	1.50	14,960	30.86	8,826	5,934
Soybeans	395 bu.		19	7,575	2.50	18,938	25.17	9,943	8,995
Oats (Grain)	350 bu.		33	11,640	.95	11,058	23.57	8,251	2,807
Oats (Sup. Past.)	(200) lbs. beef		144	28,800	0.184	5,299	13.33	2,665	2,634
Soybeans (Fol- lowing Oats)	(55) bu.		14	770	2.50	1,926	20.91	1,150	776
Perm. Pasture	632 lbs. beef		227	143,820	0.184	26,464	21.22	13,414	13,050
Idle	40								
Other	209								
Woodland	0								
TOTAL	2,092			98,647		62,505	36,202	5/	

- 1/ Total does not include 45,959 acres woodland, as no conversion and/or benefits are expected.
  - 2/ Farmsteads, farm roads, waste and non-agricultural.
  - 3/ Calculated from columns 2 and 5; rounded to nearest unit.
  - 4/ Calculated from columns 2 and 9; rounded to nearest cent.
  - 5/ Adjusted net return to eliminate the effect of negative returns.
  - 6/ All negative net returns were considered as zero.
- Parentnetical amounts are duplicated acreages.

TABLE V  
SUMMARY BY SOIL MAPPING UNITS

Basin: Boeuf - Tensas Rivers  
& Bayou Macon  
Project: Tensas River  
Reach: T-3  
State: Louisiana

Soil Unit	Acres	Future without project (Value of production in dollars)				Future with project 3/ (Value of production in dollars)				Difference in net Value
		Gross		Cost		Gross		Cost		
		Net 1/		Net 1/		Net 1/		Net 1/		
ZONE B & C - Subject to Flooding (No Zone A Benefits)										
1	31,415	508,364	331,008	178,367	2,142,899	1,214,216	928,943	750,576		
1U	11,323	166,656	106,296	60,360	708,142	376,362	331,780	271,420		
2	8,673	450,233	294,358	155,875	784,835	438,503	346,332	190,457		
2U	7,826	400,761	251,424	149,337	669,380	365,162	304,218	154,881		
2SU	807	42,875	26,257	16,618	62,261	34,399	27,862	11,244		
5	1,064	78,759	52,338	26,421	125,634	82,719	42,915	16,494		
5S	382	25,900	16,193	9,707	36,378	21,789	14,589	4,882		
5U	3,798	232,948	142,840	90,108	344,155	189,749	154,406	64,298		
5SU	1,034	62,745	38,356	24,389	67,082	39,883	27,199	2,810		
TOTAL	2/ 66,322	1,969,241	1,259,070	711,182	4,940,766	2,762,782	2,178,244	1,467,062		

1/ Adjusted for negative net returns of \$751 table III B and \$260 table III C.

2/ Does not include 46,216 acres dedicated woodland and 22,093 acres to remain in woodland in Zone B. Total Zone B: 132,539 acres.

Does not include 45,959 acres woodland and 2,087 acres water in Zone C. Total Zone C: 48,051 acres.

3/ Includes Zone C which is assumed to be the same as future conditions without project.

TABLE VI  
LAND CONVERSIONS COSTS WITH PROJECT

Boeuf - Tensas Rivers  
Basin: K Bayou Macon  
Project: Tensas River  
Reach: T-3  
State: Louisiana

Type of Conversions	Total Amount	Cost of Clearing	Cost of Smoothing	Cost of Pasture Es- tablishment	Total Cost
	<u>Acres</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>
Woods to Other Land	3,236	194,160	-	-	194,160
Woods to General Crops	25,620	1,537,200	51,240	-	1,588,440
Woods to Pasture	3,501	210,060	-	110,282	320,342
Pasture to General Crops	2,566	-	5,132	-	5,132
Pasture to Improved Pasture	6,967	-	-	-	69,670
TOTAL FOR REACH T-3					2,177,744
Annual Amortized Value (.05478)					119,297
Annual Maintenance of Converted Pasture	3,501				37,111
Annual Maintenance of Improved Pasture	6,967				33,442



TABLE VII  
ANALYSIS OF FARM DRAINAGE SYSTEM COSTS

Basin: Boeuf - Tensas Rivers  
& Bayou Macon  
Project: Tensas River  
Reach: T-3  
State: Louisiana

Zone B

Soil Mapping Unit and Land Use	Area Acres	Construction Cost		Engineer- ing Cost	Contin- gency Cost	Total Cost Instal- lation	Annual Equi- valent Inst. Mainte- Cost 1/		Total Annual Cost
		Per Acre	Total	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
1 & 1U - Cropland Pasture	24,314 5,274	15.18 8.34	369,087 43,985	73,817 8,797	36,909 4,399	479,813 57,181	62,136 7,405	55,363 1,320	117,499 8,725
2, 2U - Cropland & 2SU Pasture	9,323 2,113	13.08 8.34	121,945 17,622	24,389 3,524	12,195 1,762	158,529 22,908	20,530 2,967	18,292 529	38,822 3,496
5, 5S, - Cropland 5U; 5SU - Pasture	2,693 630	11.56 7.29	31,131 4,593	6,226 919	3,113 459	40,470 5,971	5,241 773	4,670 138	9,911 911
TOTAL	44,347		588,363	117,672	58,837	764,872	99,052	80,312	179,364

1/ Amortized at 5% for 10 year period (.12950).

Basin: Boeuf-Tensas Rivers

& Bayou Macon

Project: Tensas River

Reach: T-3

State: Louisiana

TABLE VIII  
ANALYSIS OF GROUP DRAINAGE NEEDS AND COSTS

Item	Unit	Amount	Unit Cost	Total Cost
			<u>Dollars</u>	<u>Dollars</u>
Excavation	Cu.yd	85,645	0.18	15,416.10
<u>1/</u> Shaping or Spreading Spoil				
<u>1/</u> Clearing Right-of-Way				
Right-of-way easements	Miles	9.6	20.00	192.00
Crossings	Each	7	150.00	1,050.00
Grade Control Structures	Each			
Water Gates	Each	14	40.00	560.00
Vegetative Plantings	Acres	23.30	13.00	302.90
Total Construction Cost				17,521.00
Engineering Cost				1,752.00
Contingencies & Legal				1,752.00
Total Installation Cost				21,025.00
Annual Equivalent - Installation Cost (Amortized for 20 years at $3\frac{1}{2}$ percent)				1,479.00
Annual Maintenance Cost				876.00
Total Annual Cost of Required Group Facilities				2,355.00
Discounted Annual Cost of Required Group Facilities				1,955.00

1/ These items included in excavation costs under normal procedure.

BASIN: Boeuf-Tensas Rivers  
& Bayou Macon  
 PROJECT: Tensas River  
 REACH: T-3  
 STATE: Louisiana

TABLE IX  
 SUMMARY OF ANNUAL NET PRODUCTION RETURNS AND  
 ASSOCIATED COSTS

(1) Item	(2) Total	(3) Discounted Amount
	<u>Dollars</u>	<u>Dollars</u>
1. Net Return with project	2,142,042	
2. Net Return without project	674,980	
3. Gross Benefit to project	1,467,062	911,442
4. Farm drainage cost		
(a) Installation Cost	99,052	
(b) Maintenance Cost	80,312	
(c) Total Cost	179,364	142,191
5. Group Drainage cost		
(a) Installation Cost	1,479	
(b) Maintenance Cost	876	
(c) Total Cost	2,355	1,955
6. Conversion Cost		
(a) Installation Cost	119,297	
(b) Maintenance Cost	70,553	
(c) Total Cost	189,850	117,948
7. Gross return to authorized and proposed projects		911,442
8. Less Associated Costs		262,094
9. Net return to authorized and proposed projects		649,348
10. Net return times 35% attributable to proposed project		227,272



Basin: Boeuf-Tensas Rivers

County: Lincoln

Project: Survey 14141

Range: 14

State: Louisiana

TABLE I  
PRESENT LAND USE

Zone	Soil mapping unit	OPEN Acres	WOODED Acres	WATER Acres	URBAN Acres	TOTAL Acres
Zone A	1	17,137	47,859	-	-	64,996
	2	14,597	2,073	-	-	16,670
	5	20,724	323	-	-	21,047
	11	983	-	-	-	983
Subtotal - all soils		53,441	50,255	-	-	103,696
Water				-	-	-
Urban					-	-
TOTAL - Zone A	<u>1/</u>	53,441	50,255	-	-	103,696

1/ No Zone B and C.

BASIN: Boeuf-Tensas Rivers  
 and Bayou Macon  
 PROJECT: Bayou Vidal  
 REACH: T-3A  
 STATE: Louisiana

SUMMARY - TABLE II A  
 (Zone for Drainage Calculations Only)  
 COMPUTATION OF AGRICULTURAL PRODUCTION

(1) Land use and crop distribution	(2) Acres <u>3/</u>	(4) Production		(5) Total
		(3) Unit	(4) Per acre <u>4/</u>	
Open Land	27,854			
Crops:	25,069			
Cotton	5,320	lbs.	335	1,781,000
Corn	3,350	bu.	32	107,300
Soybeans	5,400	bu.	18	98,500
Oats (Grain)	3,390	bu.	31	105,900
Oats (Sup.Past.)	(1,575)	lbs.beef	141	221,500
Soybeans (Tol- lowing Oats)	(1,455)	bu.	14	6,390
Perm. Pasture	6,860	lbs.beef	213	1,460,300
Idle	749			
Other <u>2/</u>	2,785			
Woodland	43,299			
TOTAL <u>1/</u>	71,153			

- 1/ Total does not include 25,587 acres already drained and 6,956 acres dedicated woodland.  
2/ Farmsteads, farm roads, waste and non-agricultural.  
3/ Parenthetical amounts are duplicated acreages.  
4/ Calculated from columns 2 and 5; rounded to nearest unit.

**SUMMARY - TABLE III A**

(Zone for Drainage Calculations Only)

**COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT**

(Based on projected prices)

**BASIN:** Boeuf-Tensas Rivers  
& Bayou Macon  
**PROJECT:** Bayou Vidal  
**REACH:** T-3A  
**STATE:** Louisiana

(1) Land Use and Crop	(2) Acres 1/	(3) Production		(5) Total	(6) Value of production		(8) Cost of production		(10) Net Return Dollars
		Unit	Per acre		Per Unit	Total	Per Acre	Total	
Open Land	14,957		5/						
Crops	13,462				Lint+Seed		6/		-2,457
Cotton	1,100	lbs.	255	281,000	.30445	85,551	80.01	88,008	(2,880) 2/
Corn	3,300	bu.	26	84,600	1.50	126,900	25.89	85,428	41,472
Soybeans	3,900	bu.	16	63,300	2.50	158,250	22.91	89,340	68,910
Oats (Grain)	2,270	bu.	27	60,900	.95	57,855	20.32	46,127	11,728
Oats (Sup.Past.)	(1,100)	lbs.beef	121	133,500	0.184	24,564	10.89	11,981	12,583
Soybeans (Fol- lowing Oats)	(325)	bu.	12	4,000	2.50	10,000	19.38	6,299	3,701
Perm. Pasture	2,550	lbs.beef	164	417,500	0.184	76,820	15.45	39,408	37,412
Idle	342								
Other 3/	1,495								
Woodland	19,813				7.80	154,542	4.48	88,763	65,779
TOTAL 1/	34,770					694,482		455,354	244,465 2/

- 1/ Does not include 25,587 acres already drained; 11,660 acres expected to be drained, future without project; 3,907 acres open land not expected to participate in drainage program; 20,816 acres to remain in woodland, 6,956 acres dedicated woodland.
- 2/ Adjusted to eliminate negative net returns of \$5,337.
- 3/ Farmsteads, farm roads, waste and non-agricultural.
- 4/ Parenthetical amounts are duplicated acreages.
- 5/ Calculated from columns 2 & 5; rounded to nearest unit.
- 6/ Calculated from columns 2 & 9; rounded to nearest cent.



SUMMARY - TABLE IV A  
(Zone for Drainage Calculations Only)  
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRO-  
DUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH  
PROJECT (Based on projected prices)

Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
Project: Bayou Vidal  
Reach: T-3A  
State: Louisiana

(1) Land Use and Crop Distribution	(2) Acres 3/	(3) Production		(4) Per Acre	(5) Total		(6) Value of production		(7) of production		(8) Cost of production		(9) Total		(10) Net Return
		Unit	Per Acre		Per Unit	Total	Dollars	Per Unit	Total	Dollars	Per Acre	Total	Dollars	Total	Dollars
Open Land	34,770		4/												
Crops 6/ 7/	31,293														
Cotton	1,610	lbs.	532			856,800	Lint+Seed 30445		260,853		140.87	226,803		34,050	
Corn	7,800	bu.	59			458,000	1.50		687,000		49.52	386,223		300,777	
Soybeans	10,500	bu.	34			356,000	2.50		890,000		35.15	369,120		520,880	
Oats (Brain)	6,900	bu.	57			395,400	.95		375,630		34.81	240,159		135,471	
Oats (Sup. Past.)	(5,000)	lbs. beef	226			1,130,000	0.184		207,920		21.79	108,955		98,965	
Soybeans (Fol- lowing Oats Perm. Pasture Idle	(2,050) 4,200 283	bu. lbs. beef	23 420			46,300 1,764,000	2.50 0.184		115,750 324,576		33.72 40.63	69,124 170,646		46,626 153,930	
Other 2/ Woodland	3,477 0														
TOTAL 1/	34,770								2,861,729			1571,030		1,290,699	

1/ Does not include 25,587 acres already drained; 11,660 acres expected to be drained, future without project; 3,907 acres open land not expected to participate in drainage program; 20,816 acres to remain in woodland; and 6,956 acres dedicated woodland.

2/ Farmsteads, farm roads, waste and non-agricultural.

3/ Parenthetical amounts are duplicated acreages.

4/ Calculated from columns 2 and 5; rounded to nearest unit.

5/ Calculated from columns 2 and 9; rounded to nearest cent.

6/ DRAINED: Cotton 73%; Corn 72%; Soybeans 100%; Oats (gr.) 100%; Oats (Sup. Past.) 100%; Soybeans (Fol. Oats 74%; Perm. Pasture 73%.

7/ IRRIGATED (Drained): Cotton 27%; Corn 28%; Soybeans (Fol. Oats) 26%; Permanent Pasture 27%.

TABLE V  
SUMMARY BY SOIL MAPPING UNITS

Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
Project: Bayou Vidal  
Reach: T-3A  
State: Louisiana

Soil Unit	Acres	Future without project (Value of production in dollars)			Future with project (Value of production in dollars)			Difference in net value
		Gross	Cost	Net 1/	Gross	Cost	Net 1/	
1	27,235	405,713	265,160	ZONE A (Not Subject to Flooding) 145,890	2,134,159	1,196,563	937,596	791,706
2	7,535	288,769	190,194	98,575	727,570	374,467	353,103	254,528
TOTAL 2/	34,770	694,482	455,354	244,465	2,861,729	1,571,030	1,290,699	1,046,234

1/ Adjusted for negative net returns of \$5,337 table III A.  
2/ Does not include 25,587 acres already drained, 11,660 acres to be drained without project, 1,779 acres not expected to participate in drainage; 6,956 acres dedicated to woodland; 20,816 acres to remain in woodland and 2,128 acres converted woodland not expected to be drained. Total Zone A 103,696 acres.

TABLE VI  
LAND CONVERSION COSTS WITH PROJECT

Basin: Boeuf - Tensas River  
& Bayou Macon  
Project: Bayou Vidal  
Reach: T-3A  
State: Louisiana

Type of Conversions	Total Amount	Cost of Clearing	Cost of Smoothing	Cost of Pasture Establishment	Total Cost
	<u>Acres</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>
Woods to Other Land	1,981	118,860	-	-	118,860
Woods to General Crops	16,182	970,920	32,364	-	1,003,284
Woods to Pasture	1,650	99,000	-	59,400	158,400
Pasture to General Crops	-	-	-	-	-
General Crops to Irrigated Crops (Ride Only)	-	-	-	-	-
Pasture to Improved Pasture	2,550	-	-	-	53,550
TOTAL FOR REACH T-3A					1,334,094
Annual Amortized Value (.05478)					73,082
Annual Maintenance of Converted Pasture	1,650				21,120
Annual Maintenance of Improved Pasture	2,550				26,520



TABLE VII  
ANALYSIS OF FARM DRAINAGE SYSTEM COSTS

Basin: Boeuf - Tensas Rivers  
& Bayou Macon  
Project: Bayou Vidal  
Reach: T-3 A  
State: Louisiana

Soil Mapping Unit and Land Use	Area  Acres	Construction Cost		Engineer- ing Cost	Conting- ency Cost	Total Cost Installation	Annual Equi- valent Inst. Cost $\frac{1}{2}$	Annual Mainte- nance Cost	Total Annual Cost
		Per Acre	Total						
1 - Cropland Pasture	21,012 3,500	15.18 8.34	318,962 29,190	63,792 5,838	31,896 2,919	414,650 37,947	33,272 3,045	47,844 876	81,116 3,921
2 - Cropland Pasture	6,081 700	13.08 8.34	79,539 5,838	15,908 1,168	7,954 584	103,401 7,590	8,297 609	11,931 175	20,228 784
Total	31,293		433,529	86,706	43,353	563,588	45,223	60,826	106,049

$\frac{1}{2}$  Amortized at 5% for 20 year period (.08024).

Basin: Boeuf-Tensas Rivers  
 & Bayou Macon  
 Project: Bayou Vidal  
 Reach: T-3A  
 State: Louisiana

TABLE IX  
 SUMMARY OF ANNUAL NET PRODUCTION AND  
 ASSOCIATED COSTS

(1) Item	(2) Total	(3) Discounted Amount
	<u>Dollars</u>	<u>Dollars</u>
1. Net Return with Project	1,290,699	
2. Net Return without Project	244,465	
3. Gross Benefit to Project	1,046,234	829,402
4. Farm Drainage Cost		
(a) Installation Cost	45,223	
(b) Maintenance Cost	60,826	
(c) Total Cost	106,049	84,070
5. Group Drainage Cost		
(a) Installation Cost	0	
(b) Maintenance Cost	0	
(c) Total Cost	0	0
6. Conversion Cost		
(a) Installation Cost	73,082	
(b) Maintenance Cost	47,640	
(c) Total Cost	120,722	95,702

TABLE V  
SUB-PROJECT SUMMARY BY SOIL MAPPING UNITS

Page 1 of 2

Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
Project: Tensas River & Bayou Vidal  
Sub-project Summary T-1, T-2, T-3, T-3A  
State: Louisiana

Soil Unit	Acres	Future without project (Value of production in dollars)			Future with project (Value of production in dollars)			Difference in net value
		Gross	Cost	Net 1/	Gross	Cost	Net 2/	
1	42,864	713,824	469,906	Zone A (Not 251,390	Subject to 3,339,907	Flooding) 1,847,943	1,491,964	1,240,574
1U	492	7,397	4,364	3,033	35,623	17,942	17,681	14,648
2	14,351	597,040	400,687	196,353	1,412,684	758,782	653,902	457,549
2U	6,983	306,823	185,665	121,158	609,088	322,267	286,821	165,663
5U	1,185	68,395	42,784	25,611	105,785	57,529	48,256	22,645
Subtotal 2/	65,875	1,693,479	1,103,406	597,545	5,503,087	3,004,463	2,498,624	1,901,079
1	50,728	854,135	552,886	Zone B & C (Subject to Flooding) 302,723	3,411,255	1,933,808	1,478,037	1,175,314
1U	11,323	166,656	106,296	60,360	708,142	376,362	331,780	271,420
1S	2,834	50,286	33,110	17,176	189,492	106,077	83,415	66,239
1SU	181	6,268	4,044	2,224	6,268	4,044	2,224	-
2	9,217	470,022	307,068	162,954	835,287	464,576	370,711	207,757
2U	7,826	400,761	251,424	149,337	669,380	365,162	304,218	154,881
2SU	807	42,875	26,257	16,618	62,261	34,399	27,862	11,244
5	1,129	85,072	56,048	29,024	132,592	86,761	45,831	16,807
5S	382	25,900	16,193	9,707	36,378	21,789	14,589	4,882
5U	3,798	232,948	142,840	90,108	344,155	189,749	154,406	64,298
5SU	1,034	62,745	38,356	24,389	67,082	39,883	27,199	2,810
Subtotal 3/	89,259	2,397,668	1,534,522	864,620	6,462,292	3,622,610	2,840,272	1,975,652
TOTAL	155,134	4,091,147	2,637,928	1,462,165	11,965,379	6,627,073	5,338,896	3,876,731



TABLE V  
SUB-PROJECT SUMMARY BY SOIL MAPPING UNITS

Page 2 of 2.

Basin: Boeuf - Tensas Rivers  
& Bayou Macon  
Project: Tensas River & Bayou Vidal  
Sub-project: Summary T-1, T-2, T-3, T-3A  
State: Louisiana

- 1/ Adjusted for negative net returns of \$7,472 Table III A.  
Adjusted for negative net returns of \$884 in tables III B and \$590 in table III C.
- 2/ Total does not include 37,890 acres already drained, 30,994 acres to be drained without project, 5,021 acres open land not expected to participate in drainage, 6,956 acres dedicated to woodland; 22,735 acres to remain in woodland and 2,971 acres converted woodland not expected to be drained in Zone A. Total Zone A - 172,442 acres plus 1,305 acres water and 703 acres urban = 174,450 acres.
- 3/ Does not include 72,234 acres dedicated woodland; 26,560 acres to remain in woodland. Total Zone B- 184,523 acres.  
Does not include 53,918 acres to remain in woodland in Zone C; and 2,087 acres water in Zone C.  
Total Zone C = 57,448.
- 4/ Includes Zone C which is assumed to be the same as future conditions without project.

BASIN: Boeuf, Tensas, Macon

PROJECT: Bayou Macon

REACH: BM-7

STATE: Louisiana

TABLE I  
PRESENT LAND USE

Zone 1/	Soil map- ping unit	Open (Acres)	Wooded (Acres)	Watered (Acres)	Urban (Acres)	Total (Acres)
Zone B	1	2,762	12,639	-	-	15,401
	2	208	70	-	-	278
Subtotal	all soils	2,970	12,709	-	-	15,679
Water		-	-	-	-	-
Urban		-	-	-	-	-
Total-Zone B		2,970	12,709	-	-	15,679

1/ No Zone A Benefits  
No Zone C

BASIN: Boeuf, Tensas, Macon

PROJECT: Bayou Macon

REACH: BM-7

STAT E: Louisiana

SUMMARY - TABLE II B  
(Zone for Drainage and Flood Control Calculations)  
COMPUTATION OF AGRICULTURAL PRODUCTION

(1)	(2)	(3)	(4)	(5)	(6)
Soil	Land use and crop	Acres	Unit	Production	Total
Unit	distribution			Per acre	
All	Open land CROPS: Cotton Corn Soybeans Oats (Grain) Oats (Supp. pasture) Soybeans following oats Permanent pasture Idle Other <u>2/</u> WOODLAND:	2,970 2,673 490 430 490 400 (140) (30) 765 98 297 6,805	. lbs. lint bu. bu. bu. lbs. beef bu. lbs. beef . . . .	<u>3/</u> 227 26 15 26 105 10 172 . . . .	111,400 11,300 7,550 10,500 14,750 300 131,550 . . . .
	TOTAL <u>1/</u>	9,775			

1/ Does not include 5,904 acres dedicated woodland.

2/ Farmsteads, farm roads, waste and non-agricultural.

3/ Calculated from columns 2 and 5; rounded to nearest unit.

4/ Parenthetical amounts are duplicated acreages.



BASIN: Boeuf, Tensas, Macon  
 PROJECT: Bayou Macon  
 REACH: B M-7  
 STATE: Louisiana

SUMMARY - TABLE III B  
 (Zone for Drainage and Flood Control Calculations)  
 COMPUTATION OR AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS,  
 AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT (Based on projected prices)

(1) Soil Unit	(2) Land use and crop distribution	(3) Acres	(4) Unit	(5) Production Per Acre	(6) Total	(7) Value of production PER Unit Dollars	(8) Total Dollars	(9) Cost of production per acre Dollars	(10) Total Dollars	(11) Net Return Dollars
A11	Open Land	3,530								654
	CROPS: 6/ 7/	3,177								5/(291)
	Cotton	440	LBS. Lint	249	109,609	0.30445	33,368	77.32	34,022	7,147
	Corn	485	Bu.	28	13,790	1.50	20,685	27.91	13,538	11,217
	Soybeans	625	Bu.	16	10,240	2.50	25,600	23.01	14,383	2,339
	Oats (Grain)	400	Bu.	28	11,350	0.95	10,783	21.11	8,444	2,005
	Oats (Sup, Pas.)	(195)	Lbs. Beef	106	20,700	0.184	3,809	9.25	1,804	
	Soybeans following oats	(30)	Bu.	11	335	2.50	838	18.80	564	274
	Perm. Pasture	1,155	Lbs. Beef	191	221,100	0.184	40,682	18.72	21,627	19,055
	Idle	72								
	Other 2/ WOODLAND	353								
	TOTAL	8,532				8.19	40,966	4.79	23,960	17,006
							176,731		118,342	59,334

- 1/ Does not include 1,243 acres to remain in woodland and 5,904 acres dedicated woodland.
- 2/ Farmsteads, farm roads, waste and non-agricultural.
- 3/ Calculated from columns 2 and 5; rounded to nearest unit.
- 4/ Calculated from columns 2 and 9; rounded to nearest cent.
- 5/ Adjusted net return to eliminate the effect of negative returns.
- 6/ ALL negative net returns were considered as zero.
- 7/ DRAINED: Cotton 13%; Corn 13%; Soybeans 16%; Oats (gr.) 16%; Oats (sup. past.) 15%; Soybeans (following oats) 13%; Permanent Pasture 14%.
- 7/ IRRIGATED: Cotton 2%; Corn 2%; Soybeans (following oats) 2%; Permanent Pasture 2%.
- 8/ Parenthetical amounts are duplicated acreages.

Lasin: Boeuf, Tensas, Wacon  
 Project: Bayou Macon  
 Reach: BM - 7  
 State: Louisiana

SUMMARY - TABLE IV B  
 (Zone for Drainage and Flood Control Calculations)  
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS,  
 AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT (Based on projected prices)

(1) Soil Unit	(2) Land use and crop distribution	(3) Acres	(4) Production Unit	(5) Per acre	(6) Total	(7) Value of production Per unit	(8) Total	(9) Per acre	(10) Total	(11) Net return
						Dollars	Dollars	Dollars	Dollars	Dollars
A11	Open Land	8,532								
	Crops	7,679								
	Cotton	245	lbs. lint	453	111,050	0.30445	33,809	122.39	29,986	3,823
	Corn	1,780	bu.	49	86,560	1.50	129,840	41.81	74,417	55,423
	Soybeans	3,490	bu.	29	102,020	2.50	255,050	32.18	112,301	142,749
	Oats (Grain)	1,523	bu.	52	79,426	0.95	75,455	32.86	50,042	25,413
	Oats (Sup. Past)	(1,170)	lbs. beef	201	235,400	0.184	43,314	19.45	22,756	20,558
	Soybeans Foll- owing costs	(510)	bu.	18	9,300	2.50	23,250	27.57	14,063	9,187
	Perm. Pasture	625	lbs. beef	353	220,500	0.184	40,572	33.51	20,942	19,630
	Idle	16								
	Other	2/								
	Woodland	0								
	TOTAL	8,532					601,290		324,507	276,783

- 1/ Does not include 1,243 acres to remain in woodland and 5,904 acres dedicated woodland.
- 2/ Farmsteads, farm roads, waste and non-agricultural.
- 3/ Calculated from columns 3 and 6; rounded to nearest unit.
- 4/ Calculated from columns 3 and 10; rounded to nearest cent.
- 5/ DRAINED: Cotton 73%; Corn 73%; Soybeans 86%; Oats (gr.) 86%; Oats (sup. pas) 86%; Soybeans (foll-  
owing oats) 73%; Permanent Pasture 73%.
- 6/ IRRIGATED: Cotton 13%; Corn 13%; Soybeans (following oats) 13%; Permanent Pasture 13%.
- 7/ Parenthetical amounts are duplicated acreages.



BASIN: Boeuf-Tensas Rivers and Bayou Macon  
 PROJECT: Bayou Macon  
 REACH: BM-7  
 STATE: Louisiana

TABLE V  
 PROJECT AREA SUMMARY BY SOIL MAPPING UNITS

(1) Soil Unit	(2) Acres	(3) Future without project (Production in dollars) Gross	(4) Cost	(5) Net 1/	(6) Future with project (Production in dollars) Gross	(7) Cost	(8) Net 1/	(9) Difference in net production
No Zone A Benefits								
1	8,260	164,327	109,835	Zone B (Subject to flooding) 55,437	310,862	265,069	209,632	
2	272	12,404	8,507	3,897	25,359	13,645	11,714	7,817
Total	8,532	176,731	118,342	59,334	601,290	324,507	276,783	217,449

- 1/ Adjusted for negative net returns of \$945 table III B.  
 2/ Does not include 1,243 acres to remain in woodland and 5,904 acres dedicated to woodland.  
 Total Zone B- 15,679 acres.



TABLE VI  
LAND CONVERSION COSTS WITH PROJECT

BASIN: Boeuf-Tensas Rivers and Bayou Macon  
PROJECT: Bayou Macon  
REACH: BM-7  
STATE: Louisiana

Type of Conversion	Total Acres	Cost of Smoothering	Cost of Clearing	Cost of Pasture Establishment	Total Cost
Woods to Other	500	30,000	-	-	30,000
Woods to general crops	3,914	234,840	7,828	-	242,668
Woods to irrigated crops	588	35,280	2,940	-	38,220
Woods to pasture	-	-	-	-	-
Woods to irrigated pasture	-	-	-	-	-
Pasture to irrigated pasture	83	-	249	2,490	2,739
Pasture to general crops	460	-	920	-	920
Pasture to irrigated crops	70	-	350	-	350
General crops to pasture	-	-	-	-	-
General crops to irrigated pasture	-	-	-	-	-
Pasture to improved pasture	625	-	-	-	8,125
TOTAL FOR REACH BM-7					323,022
Annual Amortized Value (.05478)					17,695
Annual Maintenance of Converted Pasture -		-	-	-	-
Annual Maintenance Imp. Pasture	625	-	-	-	4,000

TABLE VII  
ANALYSIS OF FARM DRAINAGE SYSTEM COSTS

BASIN: Boeuf-Tensas Rivers  
And Bayou Macon  
PROJECT: Bayou Macon  
REACH: BM-7  
STATE: Louisiana

Zone B									
Soil Unit and Land Use	Area	Construction Per Acre	Cost Total	Engineering Cost	Contin- gency Cost	Total Cost Installation	Annual Equiv- alent Cost $\frac{1}{}$	Annual Main- tenance Cost	Total Annual Cost
1- Cropland Pasture	5,426 476	15.18 8.34	82,367 3,970	16,473 794	8,237 397	107,077 5,161	13,866 668	12,355 119	26,221 787
2- Cropland Pasture	183 21	13.08 8.34	2,394 175	479 35	239 18	3,112 228	403 30	359 5	762 35
TOTAL	6,106		88,906	17,781	8,891	115,578	14,967	12,838	27,305

$\frac{1}{}$  Amortized at 5% for 10 year period (0.12950)

BASIN: Boeuf-Tensas Rivers  
and Bayou Macon  
 PROJECT: Bayou Macon  
 REACH: BM-7  
 STATE: Louisiana

TABLE IX  
 SUMMARY OF ANNUAL NET PRODUCTION RETURNS AND ASSOCIATED COSTS

(1) Item	(2) Total <u>Dollars</u>	(3) Discounted amount <u>Dollars</u>
1. Net Return with project	276,783	
2. Net Return without project	59,334	
3. Gross Benefits to project	217,449	172,383
4. Farm Drainage Cost		
(a) Installation Cost	14,967	
(b) Maintenance Cost	12,838	
(c) Total Cost	27,805	22,042
5. Group Drainage Cost		
(a) Installation Cost	0	0
(b) Maintenance Cost	0	0
(c) Total Cost	0	0
6. Conversion Cost		
(a) Installation Cost	17,695	
(b) Maintenance Cost	4,000	
(c) Total Cost	21,695	17,199
7. Gross Benefits to Authorized and Proposed Projects		172,383
8. Less Associated Costs		39,241
9. Net Return to Authorized and Proposed Projects		133,142
10. Net Return Times 20% Attributable to Proposed Project		26,628



BASIN: Boeuf-Tensas Rivers  
           and Bayou Macon  
 PROJECT: Bayou Macon  
 REACH: BM-8  
 STATE: Louisiana

TABLE I  
PRESENT LAND USE

Zone <u>1/</u>	Soil map- ping unit	Open (Acres)	Wooded (Acres)	Urban (Acres)	Total (Acres)
Zone B	1	2,892	15,285	-	18,177
	2	311	305	-	616
Subtotal - all soils		3,203	15,590	-	18,793
Water				-	-
Urban				-	-
Total - Zone B		3,203	15,590	-	18,793
Zone C	1	39	484	-	523
Total - Zone C		39	484	-	523
REACH TOTAL - All soils		3,242	16,074	-	19,316
Water				-	-
Urban				-	-

1/ No Zone A Benefits

BASIN: Boeuf - Tensas Rivers  
and Bayou Macon

PROJECT: Bayou Macon

REACH: BM-8

STATE: Louisiana

SUMMARY - TABLE IIB  
 (Zone for Drainage and Flood Control Calculations)  
 COMPUTATION OF AGRICULTURAL PRODUCTION

(1)	(2)	(3)	(4)	(5)	(6)
Soil	Land use and crop distribution	Acres <u>4/</u>	Production		
			unit	per acre	Total
				<u>3/</u>	
All	Open Land	3,203			
	Crops	2,883			
	Cotton	500	lbs. lint	222	111,000
	Corn	405	bu.	27	10,770
	Soybeans	515	bu.	15	7,525
	Oats (Grain)	300	bu.	25	7,440
	Oats (Sup. Past.)	(115)	lbs. beef	97	11,200
	Soybeans (Fol. Oats)	(30)	bu.	10	305
	Perm. Pasture	1,077	lbs. beef	165	177,670
	Idle	86			
	Other <u>2/</u>	320			
	Woodland	12,943			
	TOTAL <u>1/</u>	16,146			

- 1/ Does not include 2,647 acres dedicated woodland.  
2/ Farmsteads, farm roads, waste and non-agricultural.  
3/ Calculated from columns 3 and 6; rounded to nearest unit.  
4/ Parenthetical amounts are duplicated acreages.

**BASIN: Boeuf-Tensas Rivers**

**and Bayou Macon**

**PROJECT: Bayou Macon**

**REACH: PM-8**

**STATE: Louisiana**

**SUMMARY - TABLE IIIB**

(Zone for Drainage and Flood Control Calculations)  
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS,  
AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT (Based on projected prices)

(1) Soil Unit	(2) Land use and crop distribution	(3) Acres 8/	(4) Production Unit Per acre	(5) Total	(6) Value of production Per unit Total	(7) Cost of production Per acre	(8) Total	(9) Net return
ALL	Open land	4,053	3/					
	Crop 6/ 7/	3,243						
	Cotton	300	lbs. lint	242	72,500	0.30445	22,073	754
	Corn	550	bu.	27	14,700	1.50	22,050	(401)
	Soybeans	755	bu.	16	11,765	2.50	29,423	7,333
	Oats (Grain)	540	bu.	27	14,360	.95	13,642	12,601
	Oats (Sup. Pas.)	(225)	lbs. beef	108	24,250	0,184	4,452	2,739
	Soybeans fol-							2,341
	lowing oats	(60)	bu.	10	620	2.50	1,550	476
	Perm. Pasture	1,415	lbs. beef	184	260,950	0,184	48,015	22,819
	Idle	88						
	Other 2/	405						
	Woodland	9,700				7.36	71,392	26,384
	TOTAL 1/	13,753					212,597	5,775,094

- 1/ Does not include 2,393 acres to remain in woodland and 2,047 acres of dedicated woodland.
- 2/ Farmsteads, farm roads, waste and non-agricultural.
- 3/ Calculated from columns 2 and 5; rounded to nearest unit.
- 4/ Calculated from columns 2 and 9; rounded to nearest cent.
- 5/ Adjusted net returns to eliminate the effect of negative returns.
- 6/ All negative net returns were considered as zero.
- 7/ DRAINED: Cotton 11%; Corn 11%; Soybeans 12%; Oats (gr.) 12%; Oats (sup. past.) 12%; Soybeans (following cuts) 11%; Permanent Pasture 11%.
- 8/ IRRIGATED: Cotton 1%; Corn 1%; Soybeans (following oats) 1%; Permanent Pasture 1%.
- 9/ Parenthetical amounts are duplicated acreages.



BASIN: Boeuf-Tensas Rivers

Bayou Macon

PROJECT: Bayou Macon

REACH: BM-8

STATE: Louisiana

SUMMARY - TABLE IV B

(Zone for Drainage and Flood Control Calculations)  
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS,  
AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT (Based on projected prices)

(1) Soil Unit	(2) Land use and crop distribution	(3) Acres 7/	(4) Unit	(5) Production Per acre	(6) Total	(7) Value of production Per unit Dollars	(8) Total Dollars	(9) Cost of production Per acre Dollars	(10) Total Dollars	(11) Net return Dollars
A11	Open Land	13,753		3/						
	Crops 5/ 6/	12,378								
	Cotton	575	lbs. lint	446	256,250	0.30445	78,015	120.79	69,454	8,561
	Corn	2,650	bu.	49	129,300	1.50	193,950	41.89	111,007	82,943
	Soybeans	5,200	bu.	29	152,600	2.50	381,500	32.25	167,704	213,796
	Oats (Grain)	2,330	bu.	53	122,460	.95	116,337	33.01	76,918	39,419
	Oats (sup. past.)	(1,570)	lbs. beef	203	318,900	0.184	58,678	19.61	30,787	27,891
	Soybeans following oats	(535)	bu.	19	10,050	2.50	25,125	27.91	14,972	10,153
	Perm. Pasture	1,475	lbs. beef	351	518,000	0.184	95,312	33.37	49,222	46,090
	Idle	148								
	Other 2/	1,375								
	Woodland	0								
	TOTAL 1/	13,753					948,917		520,064	428,853

- 1/ Does not include 2,393 acres to remain in woodland and 2,647 acres of dedicated woodland.
- 2/ Farmsteads, farm roads, waste and non-agricultural.
- 3/ Calculated from columns 3 and 6; rounded to nearest unit.
- 4/ Calculated from columns 3 and 10; rounded to nearest cent.
- 5/ DRAINED: Cotton 73%; Corn 73%; Soybeans 86%; Oats (gr.) 86%; Oats (sup. past.) 86%; Soybeans (following oats) 73%; Permanent Pasture 73%.
- 6/ IRRIGATED: Cotton 13%; Corn 13%; Soybeans (following oats) 13%; Permanent Pasture 13%.
- 7/ Parenthetical amounts are duplicated acreages.

BASIN: Boeuf-Tensas Rivers  
           and Bayou Macon  
 PROJECT: Bayou Macon  
 REACH: BM-8  
 STATE: Louisiana

SUMMARY - TABLE II C  
 (Zone of No Project Benefit)  
 COMPUTATION OF AGRICULTURAL PRODUCTION: EXISTING CONDITIONS

(1) Soil Unit	(2) Land use and crop distribution	(3) Acres	(4)      (5) Production		(6) Total
			Unit	Per acre	
All	Open land	39		<u>2/</u>	
	Crops	35			
	Permanent Pasture	30	lbs.beef	150	4,500
	Idle	5			
	Other <sup>1/</sup>	4			
	Woodland	484			
	TOTAL	523			

1/ Farmsteads, farm roads, waste and non-agricultural.

2/ Calculated from columns 2 and 5; rounded to nearest unit.

BASIN: Boeuf-Tensas Rivers  
 and Bayou Macon  
 PROJECT: Bayou Macon  
 REACH: RM-8  
 STATE: Louisiana

SUMMARY - TABLE III & IV C  
 (Zone of No Project Benefit)  
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS,  
 AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT (Based on projected PRICES)

(1) Soil Unit	(2) Land use and crop distribution	(3) Acres 5/	(4) Unit	(5) Production Per acre	(6) Total	(7) Value of production Per unit Dollars	(8) Total Dollars	(9) Cost of production Per acre Dollars	(10) Total Dollars	(11) Net return Dollars
All	Open land	39		3/						
	Crops	35								
	Perm. Pasture	35	lbs. beef	150	5,250	0.184	966	13.98	489	477
	Other 2/ Woodland	40								
	TOTAL	39					966		489	477

- 1/ Does not include 484 acres of woodland, as no conversion and / or benefits are expected.  
 2/ Farmsteads, farm roads, waste and non-agricultural.  
 3/ Calculated from columns 3 and 6; rounded to nearest unit.  
 4/ Calculated from columns 3 and 10; rounded to nearest cent.  
 5/ Parenthetical amounts are duplicated acreages.



BASIN: Boeuf-Tensas Rivers  
 And Bayou Macon  
 PROJECT: Bayou Macon  
 REACH: BM-8  
 STATE: Louisiana

TABLE V  
 PROJECT AREA SUMMARY BY SOIL MAPPING UNITS

(1) Soil Unit	(2) Acres	(3) Future without project (Production in dollars)		(4) Future with project (Production in dollars)		(5) Difference in net production
		Gross	Cost	Gross	Cost	
1	13,201	193,040	125,622	896,903	493,271	335,059
2	591	20,523	13,525	52,980	27,282	18,700
Total	13,792	213,563	139,147	949,883	520,553	353,759

1/ Adjusted for negative net returns of \$1,155 table III B.  
 2/ Does not include 2,647 acres dedicated to woodland and 2,393 acres to remain in woodland in Zone B.  
 Total Zone B - 18,793 acres.  
 Does not include 484 acres of woodland in Zone C. Total Zone C 523 acres.

TABLE VI  
LAND CONVERSION COST WITH PROJECT

BASIN: Boeuf-Tensas Rivers  
and Bayou Macon  
PROJECT: Bayou Macon  
REACH: BM-8  
STATE: Louisiana

Type of Conversion	Total Acres	Cost of Clearing	Cost of Smoothing	Cost of Pasture Establishment	Total Cost
Woods to Other	970	58,200	0	0	58,200
Woods to General Crops	8,570	514,200	17,140	0	531,340
Woods to Irrigated Crops (Rice Only)	0	0	0	0	0
Woods to Pasture	160	9,600	0	4,800	14,400
Pasture to General Crops	82	0	164	0	164
Pasture to Irrigated Crops	0	0	0	0	0
General Crops to Pasture	0	0	0	0	0
General Crops to Irrigated Pasture	0	0	0	0	0
Pasture to Improved Pasture	1,315	0	0	0	0
Total For Reach BM-8					17,753
Annual Amortized Value (.05478)					621,857
Annual Maintenance of Converted Pasture	160	0	0	0	1,600
Annual Maintenance of Impr. Pasture	1,315				8,679

TABLE VII  
ANALYSIS OF FARM DRAINAGE SYSTEM COSTS

BASIN: Boeuf - Tensas Rivers  
and Bayou Macon  
PROJECT: Bayou Macon  
REACH: BM-8  
STATE: Louisiana

Zone B									
Soil Unit and Use	Area	Construction Per Acre	Cost Total	Engineering Cost	Contin- gency Cost	Total Cost Installa- tion	Annual Equiv- alent Cost 1/	Annual Main- tenance Cost	Total Annual Cost
- Cropland Pasture	8,543 1,191	15.18 8.34	129,683 9,933	25,937 1,987	12,968 993	168,588 12,913	21,832 1,672	19,452 298	41,284 1,970
- Cropland Pasture	418 21	13.08 8.34	5,467 175	1,093 35	547 18	7,107 228	920 30	820 5	1,740 35
TOTAL	10,173		145,258	29,052	14,526	188,836	24,454	20,575	45,029

Amortized at 5% for 10 year period. (0.12950)



BASIN: Boeuf-Tensas Rivers  
           and Bayou Macon  
 PROJECT: Bayou Macon  
 REACH: BM-8  
 STATE: Louisiana

TABLE IX  
 SUMMARY OF ANNUAL NET PRODUCTION RETURNS AND ASSOCIATED COSTS

(1) Item	(2) Total	(3) Discounted amount
	<u>Dollars</u>	<u>Dollars</u>
1. Net Return with Project	428,853	
2. Net Return without Project	75,094	
3. Gross Benefits to Project	353,759	280,442
4. Farm Drainage Cost		
(a) Installation Cost	24,454	
(b) Maintenance Cost	20,575	
(c) Total Cost	45,029	35,697
5. Group Drainage Cost		
(a) Installation Cost	0	0
(b) Maintenance Cost	0	0
(c) Total Cost	0	0
6. Conversion Cost		
(a) Installation Cost	34,065	
(b) Maintenance Cost	10,279	
(c) Total Cost	44,344	35,154
7. Gross Benefits to Authorized and Proposed Projects		280,442
8. Less Associated Costs		70,851
9. Net Return to Authorized and Proposed Projects		209,591
10. Net Return Times 20% Attributable to Proposed Project		41,918

BASIN: Boeuf-Tensas Rivers  
and Bayou Macon

PROJECT: Bayou Macon

REACH: BM-9

STATE: Louisiana

TABLE I

PRESENT LAND USE

Zone <u>1/</u>	Soil map- ping unit	Open	Wooded	Urban	Total
		(Acres)	(Acres)	(Acres)	(Acres)
Zone B	1	2,599	12,901	-	15,500
	2	1,469	43	-	1,512
Subtotal-	all soils	4,068	12,944	-	17,012
Water		-	-	-	-
Urban		-	-	-	-
TOTAL-Zone B		4,068	12,944	-	17,012

1/ No Zone A Benefits  
 No Zone C

BASIN: Boeuf-Tensas Rivers  
and Bayou Macon  
 PROJECT: Bayou Macon  
 REACH: BM-9  
 STATE: Louisiana

SUMMARY TABLE II B  
 (Zone for Drainage and Flood Control Calculations)  
 COMPUTATION OF AGRICULTURAL PRODUCTION

(1)	(2)	(3)	(4)	(5)	(6)
Soil	Land use and crop	Acres		Production	
Unit	Distribution	4/	Unit	Per acre	Total
All	Open Land	4,068		<u>3/</u>	
	Crops	3,661			
	Cotton	640	lbs.lint	280	179,200
	Corn	650	bu.	30	19,600
	Soybeans	765	bu.	19	14,195
	Oats (Grain)	550	bu.	29	15,950
	Oats (Sup. Past.)	(215)	lbs.beef	124	26,550
	Soybeans following oats	(45)	bu.	13	605
	Perm. Pasture	944	lbs.beef	196	185,230
	Idle	112			
	Other <u>2/</u>	407			
	Woodland	9,202			
	TOTAL <u>1/</u>	13,270			

- 1/ Does not include 3,742 acres of dedicated woodland.  
2/ Farmsteads, farm roads, waste and non-agricultural.  
3/ Calculated from columns 3 and 6; rounded to nearest unit.  
4/ Parenthetical amounts are duplicated acreages.



BASIN: Boeuf-Tensas Rivers  
and Bayou Macon  
PROJECT: Bayou Macon  
REACH: BM-9  
STATE: Louisiana

SUMMARY - TABLE III B  
(Zone for Drainage and Flood Control Calculations)  
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS,  
AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT (Based on projected prices)

(1) Soil Unit	(2) Land use and crop distribution	(3) Acres 8/	(4) Unit	(5) Production Per acre	(6) Total	(7) Value of production Per Unit	(8) Total	(9) Cost of production Per acre	(10) Total	(11) Net return Dollars
4.11	Open Land	4,158		3/						
	Crops 6/ 7/	3,742								
	Cotton	425	lbs. lint	301	127,750	0.30445	38,893	88.23	37,496	1,397
	Corn	835	bu.	31	25,730	1.50	38,595	29.27	24,441	(2,096)
	Soybeans	870	bu.	19	16,750	2.50	41,875	25.07	21,808	14,154
	Oats (Grain)	710	bu.	30	21,460	.95	20,387	22.03	15,642	20,067
	Oats (Sup. Past.)	(325)	lbs. beef	131	42,500	0.184	7,820	11.90	3,868	4,745
	Soybeans following oats	(65)	bu.	13	835	2.50	2,088	20.42	1,327	3,952
	Perm. Pasture	830	lbs. beef	202	167,800	0.184	30,875	19.50	16,183	761
	Idle	72								14,692
	Other 2/	416								
	Woodland	6,385				6.85	43,737	4.52	28,860	14,877
	TOTAL 1/	10,543					224,270		149,625	5/ 75,344

- 1/ Does not include 2,727 acres to remain in woodland and 3,742 acres of dedicated woodland.  
2/ Farmsteads, farm roads, waste and non-agricultural.  
3/ Calculated from columns 2 and 5; rounded to nearest unit.  
4/ Calculated from columns 2 and 9; rounded to nearest cent.  
5/ Adjusted net return to eliminate the effect of negative returns. All negative net returns were considered as zero.  
6/ DRAINED: Cotton 15%; Corn 14%; Soybeans 16%; Oats (Gr.) 17%; Oats (Sup. Pasture) 17%; Soybeans (following Oats) 15%; Perm. Pasture 14%.  
7/ IRRIGATED: Cotton 3%; Corn 2%; Soybeans (following oats) 3%; Permanent Pasture 2%.  
8/ Parenthetical amounts are duplicated acreages.

BASIN: Boeuf-Tensas Rivers

SUMMARY - TABLE IV B

PROJECT: Bayou Macon  
REACH: PM-9  
STATE: Louisiana

(Zone for Drainage and Flood Control Calculations)  
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS,  
AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT (Based on projected prices)

(1) Soil Unit	(2) Land use and crop distribution	(3) Acres 7/	(4) Unit	(5) Production Per acre	(6) Total	(7) Value of production Per unit Dollars	(8) Total Dollars	(9) Cost of production Per acre Dollars	(10) Total Dollars	(11) Net return Dollars
4.11	Open land	10,543		3/						
	Crops 5/ 6/	9,488								
	Cotton	550	lbs. lint	491	270,000	0.30445	82,201	130.11	71,558	10,643
	Corn	1,800	bu.	51	91,200	1.50	136,800	42.81	77,061	59,739
	Soybeans	4,900	bu.	30	145,700	2.50	364,250	32.49	159,243	205,007
	Oats (Grain)	1,250	bu.	53	66,000	.95	62,700	33.11	41,393	21,307
	Oats (Sup. Pas.)	(1,000)	lbs. beef	214	214,000	0.184	39,376	20.50	20,514	18,862
	Soybeans following oats	(320)	bu.	21	6,670	2.50	16,675	29.50	9,439	7,236
	Perm. Pasture	958	lbs. beef	365	349,300	0.184	64,275	34.51	33,061	31,214
	Idle	30								
	Other 2/	1,055								
	Woodland	0								
	TOTAL 1/	10,543					766,277		412,269	354,008

- 1/ Does not include 2,727 acres to remain in woodland and 3,742 acres dedicated woodland.
- 2/ Farmsteads, farm roads, waste and non-agricultural.
- 3/ Calculated from columns 3 and 6; rounded to nearest unit.
- 4/ Calculated from columns 3 and 10; rounded to nearest cent.
- 5/ DRAINED: Cotton 72%; Corn 72%; Soybeans 86%; Oats (Gr.) 86%; Oats (Sup. Pas.) 86%; Soybeans (following oats) 73%; Permanent Pasture 72%.
- 6/ IRRIGATED: Cotton 15%; Corn 14%; Soybeans (following oats) 14%; Permanent Pasture 14%.
- 7/ Parenthetical amounts are duplicated acreages.



BASIN: Boeuf-Tensas Rivers  
and Bayou Macon

PROJECT: Bayou Macon

REACH: BM-9

STATE: Louisiana

TABLE V  
PROJECT AREA SUMMARY BY SOIL MAPPING UNITS

(1) Soil Unit	(2) Acres	(3) Future without project (Production in dollars)	(4) Cost	(5) Net 1/	(6) Future with project (Production in dollars)	(7) Cost	(8) Net 1/	(9) Difference in net production
		Gross		No Zone A Benefits Zone B (Subject to flooding) (No Zone C)	Gross			
1	9,037	139,003	94,460	45,242	618,140	327,829	290,311	245,069
2	1,506	85,267	55,165	30,102	148,137	84,440	63,697	33,595
Total	10,543	224,270	149,625	75,344	766,277	412,269	354,008	278,664

1/ Adjusted for negative net returns of \$699 table III B.  
2/ Does not include 3,742 acres dedicated to woodland and 2,727 acres woodland expected to remain as woodland.  
Total Zone B - 17,012 acres.



TABLE VI  
LAND CONVERSION COSTS WITH PROJECT

BASIN: Boeuf-Tensas Rivers  
and Bayou Macon  
PROJECT: Bayou Macon  
REACH: BM-9  
STATE: Louisiana

Type of Conversion	Total Acres	Cost of Clearing	Cost of Smoothing	Cost of Pasture Establishment	Total Cost
Woods to Other	639	38,340	0	0	38,340
Woods to General Crops	5,588	335,280	11,176	0	346,456
Woods to Irrigated Crops (Rice Only)	0	0	0	0	0
Woods to Pasture	158	9,480	0	4,977	14,457
Pasture to General Crops	25	0	50	0	50
Pasture to Irrigated Crops	0	0	0	0	0
General Crops to Pasture	0	0	0	0	0
Pasture to Improved Pasture	800	0	0	0	10,800
Total for Reach BM-9					410,103
Annual Amortized Value (.05478)					22,465
Annual Maintenance of Conv. Pas.	158				1,675
Annual Maintenance of Impr. Pas.	800				5,280

TABLE VII  
ANALYSES OF FARM DRAINAGE SYSTEM COSTS

BASIN: Boeuf - Tensas Rivers  
and Bayou Macon  
PROJECT: Bayou Macon  
REACH: BM - 9  
STATE: Louisiana

Zone B									
Soil Unit and Land Use	Area	Construction Cost Per Acre	Cost Total	Engineering cost	Contin- gency Cost	Total Cost Installation	Annual Equiv- alent Cost <sup>1/</sup>	Annual Main- tenance Cost	Total Annual Cost
1 - Cropland Pasture	6,018 619	15.18 8.34	91,353 5,162	18,271 1,032	9,135 516	118,759 6,710	15,379 869	13,703 155	29,082 1,024
2 - Cropland Pasture	792 137	13.08 8.34	10,359 1,143	2,072 229	1,036 114	13,467 1,486	1,744 192	1,554 34	3,298 226
TOTAL	7,566		108,017	21,604	10,801	140,422	18,184	15,446	33,630

<sup>1/</sup> Amortized at 5% for 10 year period. (0.12950)

BASIN: Boeuf-Tensas Rivers  
           and Bayou Macon  
 PROJECT: Bayou Macon  
 REACH: BM-9  
 STATE: Louisiana

TABLE IX  
 SUMMARY OF ANNUAL NET PRODUCTION RETURNS  
 AND LOUISIANA ASSOCIATED COSTS

(1) Item	(2) Total <u>Dollars</u>	(3) Discounted amount <u>Dollars</u>
1. Net Return with Project	354,008	
2. Net Return without Project	75,344	
3. Gross Benefits to Project	278,664	220,911
4. Farm Drainage Cost		
(a) Installation Cost	18,184	
(b) Maintenance Cost	15,446	
(c) Total Cost	33,630	26,660
5. Group Drainage Cost		
(a) Installation Cost	0	
(b) Maintenance Cost	0	
(c) Total Cost	0	0
6. Conversion Cost		
(a) Installation Cost	22,465	
(b) Maintenance Cost	6,955	
(c) Total Cost	29,420	<u>23,323</u>
7. Gross Benefit to authorized and proposed projects		220,911
8. Less Associated Costs		49,983
9. Net return to authorized and proposed projects		170,928
10. Net return times 20% attributable to proposed project		34,186



BASIN: Boeuf-Tensas Rivers

and Bayou Macon

PROJECT: Bayou Macon

REACH: FM 7-8-9 Summary

STATE: Louisiana

TABLE V  
PROJECT AREA SUMMARY BY SOIL MAPPING UNITS

(1) Soil Unit	(2) Acres	(3) Gross Future without project (Production in dollars)	(4) Cost	(5) Net 1/ No Zone A Benefits Zone B & C (Subject to flooding)	(6) Gross Future with project (Production in dollars)	(7) Cost	(8) Net 1/	(9) Difference in net production
1	30,498	496,370	329,917	169,252	2,090,974	1,131,962	959,012	789,760
2	2,369	118,194	77,197	40,997	226,476	125,367	101,109	60,112
Total 2/	32,867	614,564	407,114	210,249	2,317,450	1,257,329	1,060,121	849,872

1/ Adjusted for negative net returns of \$2,799 table III B.

2/ Does not include 6,363 acres to remain in woodland; and 12,293 acres dedicated to woodland in Zone B.

Total Zone B - 51,484 acres.

Does not include 484 acres of woodland in Zone C. Total Zone C - 523 acres.



Basin: Boeuf-Tensas Rivers & Bayou Macon  
 Project: Big & Colewa  
 Reach: EC-3  
 State: Louisiana

TABLE I  
 PRESENT LAND USE

Zone	Soil mapping unit	Open (Acres)	Wooded (Acres)	Miscellaneous (Acres)	Total (Acres)
Zone A	2	163	38	-	201
	9S	3,431	177	-	3,608
	9U	402	129	-	531
	10	1,867	2,728	-	4,605
	10U	14,409	12,256	-	27,365
Subtotal - all soils		20,272	16,038	-	36,310
Water		-	-	-	-
Urban		-	-	-	-
Total - Zone A		20,272	16,038	-	36,310
Zone B	2	184	88	-	272
	9S	604	78	-	682
	10	860	1,652	-	2,512
	10U	5,022	4,293	-	9,315
Subtotal - all soils		6,670	6,111	-	12,781
Water		-	-	-	-
Urban		-	-	-	-
Total - Zone B		6,670	6,111	-	12,781
Zone C	1a	19	38	-	57
	2	75	44	-	119
	9S	13	6	-	19
	10	358	842	-	1,200
	10U	550	339	-	889
Subtotal - all soils		1,015	1,269	-	2,284
Water		-	-	-	-
Urban		-	-	-	-
Total - Zone C		1,015	1,269	-	2,284
Reach Total - All Soils		27,957	23,418	-	51,375



Basin: Boeuf & Tensas Rivers  
 & Bayou Macon  
 Project: Big & Colewa  
 Reach: BC-1  
 State: Louisiana

SUMMARY - TABLE II A  
 (Zone for Drainage Calculations Only)  
 COMPUTATION OF AGRICULTURAL PRODUCTION

(1) Soil	(2) Land use and crop Distribution	(3) Acres 1/	(4) Unit	(5) Production per acre 2/	(6) Total
All	Open Land	20,242			
	Crops	18,219			
	Cotton	4,592	lbs. lint	248	1,138,000
	Cotton Seed	(4,592)	ton		1,024.20
	Corn	3,605	bushel	20	72,320
	Soybeans	1,755	bushel	15	26,080
	Oats (grain)	1,720	bushel	31	52,460
	Supp. Oat Past.	570	lbs. beef	175	99,500
	Soybeans (Fol- lowing Oats)	(200)	bushel	12	2,350
	Perm. Pasture	5,384	lbs. beef	160	860,225
	Idle	593			
	Other 3/	2,023			
	Woodland	16,038			
	Total 4/	36,280			

- 1/ Parenthetical amounts are duplicated acreages.  
 2/ Calculated from columns 3 and 6; rounded to nearest unit.  
 3/ Farmsteads, farm roads, waste and non-agricultural.  
 4/ Total does not include 30 acres already drained.

Basin: Boeuf & Tensas Rivers

& Bayou Macon

Project: Big & Colewa

Reach: BC-1

State: Louisiana

SUMMARY - TABLE III A

(Zone for Drainage Calculations Only)

COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT (Based on projected prices)

(1) Soil unit	(2) Land Use and Crop distribution	(3) Acres 1/	(4) Unit	(5) Production per acre	(6) Total	(7) Value of production per unit	(8) Total	(9) of production per acre	(10) Cost Total	(11) Net Return
All	Open Land	17,013		2/				3/		
	Crops	15,314								
	Cotton	1,955	lbs. lint	247	483,750	.30445	147,279	77.94	152,382	(42)6/
	Corn	3,875	+ seed bushel	20	77,555	1.50	116,333	23.30	90,283	-5,103 (26,399)6/ 26,050
	Soybeans	2,195	bushel	15	32,810	2.50	82,025	22.04	48,380	33,645
	Oats (grain)	1,909	bushel	30	57,893	.95	54,999	21.92	41,851	13,143
	Oats (Sup. Past.)	(630)	lbs. beef	160	101,125	0.184	18,607	17.00	10,713	7,894
	Soybeans (Fol- lowing Oats)	(150)	bushel	12	1,850	2.50	4,625	19.85	2,977	1,648
	Fern. Pasture	4,943	lbs. beef	156	771,175	0.184	141,896	16.59	81,992	59,904
	Idle	437								
	Other 4/	1,699								
	Woodland	6,140				6.39	39,235	4.20	25,788	13,447
	TOTAL 5/	23,153							6/	156,127

1/ Parenthetical amounts are duplicated acreages.

2/ Calculated from columns 3 and 6; rounded to nearest unit.

3/ Calculated from columns 3 and 10; rounded to nearest cent.

4/ Farmsteads, farm roads, waste and non-agricultural.

5/ Total does not include 30 acres already drained; 4,040 acres expected to be drained, future without project;

5,410 acres open land not expected to participate in drainage program and 3,677 acres to remain in woodland,

6/ Adjusted net return to eliminate the effect of negative returns. All negative net returns were considered

as zero.



Basin: Boeuf & Tensas Rivers  
and Bayou Macon  
Project: Big & Colewa  
Reach: BC-1  
State: Louisiana

SUMMARY - TABLE IVA  
(Zone for Drainage Calculations Only)  
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION  
COSTS, AND NET RETURNS, FUTURE CONDITIONS WITH PROJECT (Based on  
projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil	Land Use and Crop Distribution	Acres	Unit	Production per acre	Total	Value of production per unit	Total	Cost per acre	Total	Net Return
ALL	Open Land	23,153		2/				3/		
	Crops	20,839								
	Cotton	1,445	lbs. lint	424	612,525	30445	186,485	122.74	177,368	9,117
	Corn	5,210	bu. seed	42	216,280	1.50	324,420	42.23	220,052	104,368
	Soybeans	3,785	bushel	20	75,625	2.50	189,062	26.29	99,513	89,549
	Oats (grain)	4,489	bushel	40	178,500	.95	169,576	26.33	118,195	51,381
	Oats (Sup. Past.)	(1,880)	lbs. beer	248	466,000	0.184	85,744	26.58	49,969	35,775
	Soybeans (fol- lowing oats)	(1,025)	bushel	15	15,500	2.50	38,750	22.20	22,760	15,990
	Perm. Pasture	5,668	lbs. beef	260	1,473,710	0.184	271,163	28.26	160,178	110,985
	Idle	242								
	Other	2,314								
	Woodland	-								
	TOTAL	23,153								417,165

- 1/ Parenthetical amounts are duplicated acreages.
- 2/ Calculated from columns 3 and 6; rounded to nearest unit.
- 3/ Calculated from columns 3 and 10; rounded to nearest cent.
- 4/ Farmsteads, farm roads, waste and non-agricultural.
- 5/ Total does not include 30 acres already drained; 4,040 acres expected to be drained, future without project; 5,410 acres open land not expected to participate in drainage program and 3,677 acres to remain in woodland.
- 6/ Drained: Cotton 73%, Soybeans, Oats (gr.), Oats (Sup. Past.), and Soybeans (Following Oats) all 100%;
- Perm. Pasture 96% and Corn 71%.
- 7/ Irrigated: Cotton 27%; Corn 29%; Perm. Pasture 4%.



Basin: Boeuf & Tensas Rivers  
 & Bayou Macon  
 Project: Big & Colewa  
 Reach: BC-1  
 State: Louisiana

SUMMARY - TABLE II B  
 (Zone for Drainage and Flood Control Calculations)  
 COMPUTATION OF AGRICULTURAL PRODUCTION

(1) Soil Unit	(2) Land use and crop distribution	(3) Acres 1/	(4) Unit	(5) Production per acre 2/	(6) Total
All	Open Land	6,670			
	Crops	6,004			
	Cotton	1,480	lbs. lint	245	362,500 4/
	Corn	1,180	+ seed bushel	19	22,890
	Soybeans	760	bushel	15	11,320
	Oats (grain)	610	bushel	29	17,690
	Oats (Sup. Past.)	265	lbs. beef	176	46,750
	Perm. Pasture	1,290	lbs. beef	147	190,000
	Idle	419			
	Other 3/	666			
	Woodland	6,111			
	TOTAL	12,781			

- 1/ Parenthetical amounts are duplicated acreages.  
 2/ Calculated from columns 3 and 6; rounded to nearest unit.  
 3/ Farmsteads, farm roads, waste and non-agricultural.  
 4/ Pounds of lint 362,500 x .0009 = 326.25 tons of seed.

Basin: Boeuf & Tensas Rivers  
 & Bayou Macon  
 Project: Big & Colewa  
 Reach: BC-1  
 State: Louisiana

SUMMARY - TABLE III B  
 (Zone for Drainage and Flood Control Calculations)  
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS,  
 AND NET RETURN, FUTURE CONDITIONS WITHOUT PROJECT (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil, unit	Land use and crop distribution	Acres	Unit	Production per acre	Total	per unit of production	Total	per acre of production	Total	Net Return
						Dollars	Dollars	Dollars	Dollars	Dollars
ALL	Open Land	7,825		2/				3/		
	Crops 7/ 8/	7,044								(32) 6/
	Cotton	1,230	lbs, lint + seed	275	338,300	.30445	102,996	85.65	105,355	(15,358) 6/
	Corn	1,413	bushel	23	32,720	1.50	49,080	26.07	36,838	(12,242) 6/
	Soybeans	1,000	bushel	16	15,880	2.50	39,700	22.67	22,670	17,030
	Oats (grain)	1,365	bushel	31	42,780	.95	40,642	22.26	30,391	10,251
	Oats (sup. Past.)	(515)	lbs, beef	175	89,900	0.184	16,541	18.68	9,621	6,920
	Soybeans (Following Oats)	(75)	bushel	11	825	2.50	2,063	18.60	1,395	668
	Perm. Pasture	1,604	lbs, beef	164	264,068	0.184	48,589	17.65	28,303	20,286
	Idle	432								
	Other 4/	781								
	Woodland	3,044				6.39	19,451	4.20	12,785	6,666
	TOTAL 5/	10,869							6/	74,419

- 1/ Parenthetical amounts are duplicated acreages.
- 2/ Calculated from columns 3 and 6; rounded to nearest unit.
- 3/ Calculated from columns 3 and 10; rounded to nearest cent.
- 4/ Farmsteads, farm roads, waste and non-agricultural.
- 5/ Total does not include 1,912 acres of woodland which will remain in woodland.
- 6/ Adjusted net return to eliminate the effect of negative returns. All negative net returns were considered as zero.
- 7/ Drained: Cotton 13%; Corn 13%; Soybeans 18%; Oats (gr.) 19%; Oats (Sup. Past.) 20%; Soybeans (following oats) 17%; Permanent Pasture 16%.
- 8/ Irrigated: Cotton 5%; Corn 5%; Permanent Pasture 1%.



Basin: Pecos & Tensas Rivers

& Bayou Macon

Project: 51 g & Colewa

Reach: 30-1

State: Louisiana

SUMMARY - TABLE IV B

(Zone for Drainage and Flood Control Calculations)

COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT (Based on projected prices)

(1) SOIL Unit	(2) Land use and crop distribution	(3) Acres <u>1/</u>	(4) Unit	(5) Production per acre	(6) Total	(7) Value of production per unit	(8) Total	(9) Cost of production per acre	(10) Total	(11) Net Return Dollars
All	Open Land	10,869		<u>2/</u>						
	Crops <u>7/</u> <u>8/</u>	9,784								(3,893) <u>6/</u>
	Cotton	710	lbs. lint + seed	399	283,150	.30445	86,221	116.67	82,835	3,386
	Corn	2,000	bushel	37	74,980	1.50	112,470	38.63	77,255	35,215
	Soybeans	1,800	bushel	19	34,110	2.50	85,275	25.60	46,078	39,197
	Oats (grain)	3,033	bushel	38	115,824	.95	110,033	25.47	77,243	32,790
	Oats (Sup.Past.)	(1,110)	lbs. beef	229	253,900	0.184	46,718	24.65	27,359	19,359
	Soybeans (Fol- lowing oats)	(435)	bushel	15	6,575	2.50	16,438	22.44	9,761	6,677
	Perm. Pasture	2,135	lbs. beef	235	500,775	0.184	92,145	25.63	54,723	37,422
	Idle	106								
	Other <u>4/</u>	1,085								
	Woodland	-								
	TOTAL <u>5/</u>	10,869							<u>6/</u>	174,553

1/ Parenthetical amounts are duplicated acreages.

2/ Calculated from columns 3 and 6; rounded to nearest unit.

3/ Calculated from columns 3 and 10; rounded to nearest cent

4/ Farmsteads, farm roads, waste and non-agricultural.

5/ Total does not include 1,912 acres of woodland to remain as woodland.

6/ Adjusted net return to eliminate the effect of negative returns. All negative net returns were considered as zero.

7/ Drained: cotton 62%; corn 61%; Soybeans 85%; oats (gr.) 84%; Oats (Sup.Past.) 85%; Soybeans (Following Oats) 88%;

Permanent Pasture 77%.

8/ Irrigated: Cotton 24%; Corn 23%; Permanent Pasture 4%.



SUMMARY - TABLE III C  
 (Zone of No Project Benefit)  
 COMPUTATION OF AGRICULTURAL PRODUCTION:  
EXISTING CONDITIONS

Basin: Boeuf & Tensas Rivers  
& Bayou Macon  
 Project: Big & Colewa  
 Reach: BC-1  
 State: Louisiana

(1)	(2)	(3)	(4)	(5)	(6)
Soil Unit	Land Use and Crop distribution	Acres <u>1/</u>	Production		Total
			Unit	per acre	
All	Open Land	1,015		<u>2/</u>	
	Crops	914			
	Cotton	190	lbs. lint + seed	226	43,000 <u>4/</u>
	Corn	190	bushel	17	3,235
	Soybeans	100	bushel	13	1,290
	Oats (grain)	125	bushel	28	3,500
	Oats (sup.past.)	35	lbs. beef	136	4,750
	Perm. Pasture	242	lbs. beef	134	32,500
	Idle	32			
	Other <u>3/</u>	101			
	Woodland	1,269			
	TOTAL	2,284			

- 1/ Parenthetical amounts are duplicated acreages.  
2/ Calculated from columns 3 and 6; rounded to nearest unit.  
3/ Farmsteads, farm roads, waste and non-agricultural.  
4/ Pounds of lint 43,000 x .0009 = 38.7 tons of seed.

COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT (Based on projected prices)

(1) Soil unit	(2) Land use and crop distribution	(3) Acres	(4) Unit	(5) Production per acre	(6) Total	(7) Value of production Per Unit	(8) Total	(9) Cost of production Per acre	(10) Total	(11) Net Return
						Dollars	Dollars	Dollars	Dollars	Dollars
ALL	Open Land	1,015		2/				3/		(0)6/
	Crops	914								-381
	Cotton	60	lbs. lint + seed	225	13,500	304.45	4,110	74.85	4,491	(1,299)6/
	Corn	235	bushel	18	4,170	1.50	6,255	22.08	5,189	1,066
	Soybeans	120	bushel	13	1,590	2.50	3,975	20.72	2,486	1,489
	Oats (grain)	62	bushel	30	1,860	.95	1,767	21.77	1,350	417
	Oats (sup. past.)	(32)	lbs. beef	150	4,800	0.184	883	15.87	508	375
	Perm. Pasture	422	lbs. beef	139	58,475	0.184	10,760	14.70	6,205	4,555
	Idle	15								
	Other	101								
	Woodland									
	TOTAL	5/ 1,015							6/	8,135

- 1/ Parenthetical amounts are duplicated acreages.
- 2/ Calculated from columns 3 and 6; rounded to nearest unit.
- 3/ Calculated from columns 3 and 10; rounded to nearest cent.
- 4/ Farmsteads, farm roads, waste and non-agricultural.
- 5/ Total does not include 1,269 acres woodland, as no conversion and/or benefits are expected.
- 6/ Adjusted net return to eliminate the effect of negative returns. All negative net returns were considered as zero.



Basin: Boeuf & Tensas Rivers  
& Bayou Macon

Project: Big & Colewa

Reach: BC-1

State: Louisiana

TABLE V  
REACH 1 SUMMARY BY SOIL MAPPING UNITS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Soil Unit	Office Acres	Future without project (Production in dollars)		Future with project <u>4/</u> (Production in dollars)		Difference in Net Production		
		Gross	Cost	Net <u>1/</u>	Gross	Cost	Net <u>1/</u>	
2	71	2,901	2,440	504	5,151	3,425	1,726	1,222
9S	1,889	75,665	55,621	20,034	102,356	70,105	32,251	11,620
9U	296	9,323	6,389	2,934	15,997	10,149	5,848	2,914
10	1,219	18,835	14,575	4,260	55,806	37,098	18,708	13,004
10U	19,678	498,274	375,340	126,354	1,085,890	727,258	358,632	232,278
Subtotal	23,153	604,998	454,365	156,127	1,265,200	848,035	417,165	261,038
ZONES B AND C - (Subject to Flooding)								
1a	341	12,383	9,207	3,176	20,911	13,361	7,572	4,374
9S	690	30,798	21,260	9,538	39,846	25,891	13,955	4,304
10	1,628	28,114	22,455	5,659	49,595	35,743	14,866	7,120
10U	9,206	274,996	214,546	61,850	466,477	320,369	146,193	84,336
Subtotal	11,884	346,812	267,587	82,554	577,050	395,483	182,688	100,134
TOTAL	35,037	951,810	721,952	238,681	1,842,250	1,243,518	599,853	361,172

- 1/ Adjusted to eliminate negative net returns.
- 2/ Total area of Zone A reduced by 30 acres already drained; 4,040 acres expected to be drained, future without project; 5,410 acres open land not expected to participate in drainage program and 3,677 acres to remain in woodland. Total acres in reach BC-1 - Zone A - 36,310.
- 3/ Does not include 1,912 acres expected to remain in woodland in Zone B and does not include 1,269 acres expected to remain in woodland in Zone C.
- 4/ Includes Zone C which is assumed to be the same as future conditions without project.



Basin: Boeuf & Tensas Rivers  
 & Bayou Macon  
 Project: Big & Colewa  
 Reach: BC-1  
 State: Louisiana

TABLE VI  
 LAND CONVERSION WITH PROJECT

Type of Conversion	Total amount	Cost of clearing	Cost of smoothing	Cost of pasture establishment	Cost of irrigation system	Total cost
<u>Per Acre</u>	<u>Acres</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>
Woods to Other	918	53,244	xx	xx	xx	53,244
Woods to General Crops	7,021	407,218	14,042	xx	xx	421,260
Woods to Irrigated Crops (Rice Only)	xx	xx	xx	xx	xx	xx
Woods to Pasture	1,245	72,210	xx	34,860	xx	107,070
Pasture to General Crops	xx	xx	xx	xx	xx	xx
Pasture to Irrigated Crops (Rice Only)	xx	xx	xx	xx	xx	xx
General Crops to Irrigated Crops (Rice Only)	xx	xx	xx	xx	xx	xx
General Crops to Pasture	11	xx	xx	308	xx	308
TOTAL FOR REACH BC-1						
Annual amortized value (.05478)						31,875
Annual maintenance pasture	1,256	xx	xx	12,196	xx	12,196

581,882

Basin: Boeuf & Tensas Rivers

& Bayou Macon

Project: Big & Colewa

Reach: BC-1

State: Louisiana

TABLE VII  
ANALYSIS OF FARM DRAINAGE SYSTEM COSTS

Zone A & B Combined		Area	Construction Cost Per Acre	Construction Cost Total	Engineering Cost	Contin- gency Cost	Total Cost Installation	Annual Equivalent Cost 1/	Annual Maintenance Cost	Total Annual Cost
Soil Mapping Unit and Land Use		Acres	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
2	- Cropland Pasture	227 28	11.51 7.16	2,613 200	523 40	261 20	3,397 260	440 34	392 6	832 40
9S & 9U	- Cropland Pasture	1,259 1,053	10.13 7.46	12,754 7,855	2,551 1,571	1,275 785	16,580 10,211	2,147 1,322	1,913 236	4,060 1,558
10	- Cropland Pasture	890 735	13.13 6.79	11,686 4,991	2,337 998	1,169 499	15,192 6,488	1,967 840	1,753 250	3,720 1,090
10U	- Cropland Pasture	18,000 5,568	11.46 7.30	206,280 40,646	41,256 8,129	20,628 4,065	268,164 52,840	34,727 6,843	30,942 1,219	65,669 8,062
TOTAL REACH BC-1		27,760		287,025	57,405	28,702	373,132	48,320	36,711	85,031

1/ Amortized at 5% over a 10 year period. (.12950)

Basin: Boeuf & Tensas Rivers  
& Bayou Macon  
 Project: Big & Colewa  
 Reach: BC-1  
 State: Louisiana

TABLE VIII  
 ANALYSIS OF GROUP DRAINAGE NEED & COSTS

Item	Unit	Amount	Unit Cost Dollars	Total Cost Dollars
Excavation	Cu. yd.	11,700	0.15	1,755.00
Shaping or spreading spoil <u>1/</u> Clearing right-of-way <u>1/</u> Right-of-way easements	miles	1.52	20.00	30.40
Crossings	Each	2	150.00	300.00
Grade Control Structures	Each	-	-	-
Water Gates	Each	2	40.00	80.00
Vegetative Plantings	Acres	3.7	13.00	48.10
Total Construction Cost	x	x	x	2,213.50
Engineering Cost	x	x	x	221.35
Contingencies & Legal	x	x	x	221.35
Total Installation Cost				2,656.20
Annual Equivalent - Installation Cost (amortized for 20 years at $3\frac{1}{2}$ Percent)				186.89
Annual Maintenance Cost				110.68
Total Annual Cost of Required Group Facilities				297.57

1/ These items included in excavation costs under normal contract procedure.



Basin: Boeuf & Tensas Rivers  
       & Bayou Macon  
 Project: Big & Colewa  
 Reach: BC-1  
 State: Louisiana

TABLE IX  
SUMMARY OF ANNUAL NET PRODUCTION RETURNS AND ASSOCIATED COSTS

(1) Item	(2) Total	(3) Discounted Amount
	<u>Dollars</u>	<u>Dollars</u>
1. Net return with project	591,718	
2. Net return without project	230,546	
3. Gross benefit to project	361,172	286,319
4. Farm Drainage Cost		
a. Installation Cost	48,320	
b. Maintenance Cost	36,711	
c. Total Cost	85,031	67,408
5. Group Drainage Cost		
a. Installation Cost	187	
b. Maintenance Cost	110	
c. Total Cost	297	297
6. Conversion Cost		
a. Installation Cost	31,875	
b. Maintenance Cost	12,196	
c. Total Cost	44,071	34,937

Basin: Boeuf-Tensas Rivers & Bayou Macon

Project: Big & Colewa

Reach: BC-2

State: Louisiana

TABLE I  
PRESENT LAND USE

Zone	Soil map- ping unit	Open (Acres)	Wooded (Acres)	Miscella- neous (Acres)	Total (Acres)
Zone A	1	189	155	-	344
	1a	1,609	4,683	-	6,292
	2	1,498	307	-	1,805
	5	1,282	38	-	1,320
	5U	1,187	641	-	1,828
	9S	6,022	336	-	6,358
	9SU	652	44	-	696
	10	6,063	17,726	-	23,789
	10U	32,339	18,935	-	51,274
	Subtotal - all soils	50,841	42,865	-	93,706
Urban		-	-	-	-
Water		-	-	-	-
Total - Zone A		50,841	42,865	-	93,706
Zone B	1a	466	5,565	-	6,031
	2	311	-	-	311
	5U	1,257	4,061	-	5,318
	9S	325	29	-	354) 1/
	9SU	30	21	-	51)
	10	1,488	10,101	-	11,589
	10U	3,501	3,100	-	6,601
Subtotal - all soils		7,378	22,877	-	30,255
Urban		-	-	-	-
Water		-	-	-	-
Total - Zone B		7,378	22,877	-	30,255
Zone C	1a	43	566	-	609
	5U	230	407	-	637
Subtotal - all soils		273	973	-	1,246
Urban		-	-	-	-
Water		-	-	-	-
Total - Zone C		273	973	-	1,246
Reach Total - all soils		58,492	66,715	-	125,207

1/ Soil Units 9S and 9SU combined as 9S on Table IB.

Basin: Boeuf & Tensas Rivers  
& Bayou Macon  
Project: Big & Colewa  
Reach: BC-2  
State: Louisiana

SUMMARY - TABLE II A  
(Zone for Drainage Calculations Only)  
COMPUTATION OF AGRICULTURAL PRODUCTION

(1) Soil unit	(2) Land Use and crop distribution	(3) Acres <u>1/</u>	(4) Unit	(5) Production per acre <u>2/</u>	(6) Total
All	Open Land	41,202			
	Crops	37,086			
	Cotton	8,791	lbs.lint	241	2,123,700
	Cotton Seed	(8,791)	ton		1,911.33
	Corn	7,700	bushel	20	153,130
	Soybeans	2,535	bushel	17	42,260
	Oats (grain)	3,000	bushel	31	92,660
	Oats (Sup.Past.)	1,880	lbs.beef	185	347,000
	Soybeans(fol- lowing Oats)	(620)	bushel	13	8,360
	Perm. Pasture	11,841	lbs.beef	147	1,736,050
	Idle	1,339			
	Other <u>3/</u>	4,116			
	Woodland	38,419			
	TOTAL <u>4/</u>	79,621			

- 1/ Parenthetical amounts are duplicated acreages.  
2/ Calculated from columns 3 and 6; rounded to nearest unit.  
3/ Farmsteads, farm roads, waste and non-agricultural.  
4/ Total does not include 9,639 acres already drained, and 4,446 acres dedicated woodland.



Project: Rock of Texas River  
 District: Rock of Texas River  
 Section: Rock of Texas River  
 Subsection: Rock of Texas River

(Zone for Drainage Calculations Only)  
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS, AND NET RETURNS, FUTURE CONDITIONS WITHOUT PROJECT (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil Unit	Land Use and Crop Distribution	Acres	Unit	Production per acre	Total	Value of production Per unit	Total	Cost of production Per acre	Total	Net Return
ALL	Open Land	31,133		2/				3/		
	Crops	28,023								
	Cotton	5,860	lbs. lint	247	1,445,100	.30445	439,962	78.05	457,374	(888)6/
	Corn	4,233	+ seed bushel	21	89,244	1.50	133,866	23.88	101,079	-17,412
	Soybeans	3,308	bushel	16	53,381	2.50	133,453	22.99	76,041	(33,660)6/
	Oats (Grain)	5,674	bushel	30	170,899	.95	162,355	21.84	123,916	32,787
	Oats (Sup. Past.)	(1,922)	lbs. beef	172	330,675	0.184	60,844	18.31	35,199	57,453 6/
	Soybeans (fallowing Oats)	(550)	bushel	11	6,280	2.50	15,700	19.07	10,489	5,211
	Perm. Pasture	7,928	lbs. beef	151	1,196,100	0.184	220,083	15.97	126,608	93,475
	Idle	1,020								
	Other	3,110								
	Woodland	13,785				6.19	85,330	3.58	49,351	35,979
	TOTAL	5/ 44,918							6/ 49,351	291,018

- 1/ Parenthetical amounts are duplicated acreages.
- 2/ Calculated from columns 3 and 6; rounded to nearest unit.
- 3/ Calculated from columns 3 and 10; rounded to nearest cent.
- 4/ Farmsteads, farm roads, waste and non-agricultural.
- 5/ Total does not include 9,639 acres already drained; 4,850 acres expected to be drained, future without project; 13,911 acres open land not expected to participate in drainage program; and 15,942 acres to remain in woodland; and 4,446 acres dedicated woodland.
- 6/ Adjusted net return to eliminate the effect of negative returns.
- 7/ All negative net returns were considered as zero. Also soybeans adjusted to eliminate negative return of \$41.
- 8/ Oats (grain) adjusted to eliminate negative return of \$268.

Basin: Boeuf & Tensas Rivers  
 & Bayou Macon  
 PROJECT: Big & Colewa  
 REACH: BC-2  
 STATE: Louisiana

SUMMARY - TABLE IV A  
 (Zone for Drainage Calculations Only)  
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION  
 COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT (Based on  
 projected prices)

(1) Soil Unit	(2) Land Use and Crop Distribution	(3) Acres	(4) Unit	(5) Production Per Acre	(6) Total	(7) Value of production Per Unit Dollars	(8) Total Dollars	(9) Cost of production Per acre Dollars	(10) Total Dollars	(11) Net Return Dollars
ALL	Open Land	44,918		2/				3/		
	Crops 6/ 7/	10,429								
	Cotton	3,870	lbs. lint	426	1,647,060	304.45	501,452	122.82	475,306	26,146
	Corn	7,285	bu. seed	41	301,250	1.50	451,875	41.62	303,189	148,686
	Soybeans	7,681	bu. seed	21	158,900	2.50	397,249	26.73	205,294	191,955
	Oats (Grain)	11,830	bu. seed	40	472,700	.95	449,066	26.42	312,557	136,509
	Oats (Sup. Past.)	(4,885)	lbs. beef	248	1,210,875	0.184	222,801	26.58	129,857	92,944
	Soybeans (Fol- lowing Oats)	(1,565)	bu. seed	17	25,850	2.50	64,625	23.35	36,546	28,079
	Perm. Pasture	9,320	lbs. beef	267	2,486,895	0.184	457,588	29.44	274,416	183,172
	Idle	443								
	Other	4,489								
	Woodland									
	TOTAL	144,918								807,491

- 1/ Parenthetical amounts are duplicated acreages.
- 2/ Calculated from columns 3 and 6; rounded to nearest unit.
- 3/ Calculated from columns 3 and 10; rounded to nearest cent.
- 4/ Farmsteads, farm roads, waste and non-agricultural.
- 5/ Total does not include 9,632 acres already drained; 4,850 acres expected to be drained, future without project; 13,911 acres open land not expected to participate in drainage program; and 15,942 acres to remain in woodland; and 4,446 acres dedicated woodland.
- 6/ Drained: Cotton 73%; Corn 72%; Soybeans, Oats (gr.) and Soybeans (following oats) all 100%; Perm. Pasture 91%.
- 7/ Irrigated: Cotton 27%; Corn 28%; Perm. Pasture 9%.



Basin: Boeuf & Tensas Rivers  
 & Bayou Macon  
 Project: Big & Colewa  
 Reach: BC-2  
 State: Louisiana

SUMMARY - TABLE II B  
 (Zone for Drainage and Flood Control Calculations)  
 COMPUTATION OF AGRICULTURAL PRODUCTION

(1) Soil Unit	(2) Land Use and Crop distribution	(3) Acres 1/	(4) Production Unit	(5) Per acre 2/	(6) Total
All	Open Land	7,378			
	Crops	6,651			
	Cotton	1,182	lbs. lint	271	319,742
	Cotton Seed	(1,182)	ton		287.77
	Corn	1,280	bushel	23	29,940
	Soybeans	640	bushel	15	9,465
	Oats (Grain)	647	bushel	31	19,864
	Oats (Sup. Past.)	345	lbs. beef	176	60,600
	Soybeans (Fol- lowing Oats)	(150)	bushel	11	1,600
	Perm. Pasture	2,069	lbs. beef	141	292,438
	Idle	488			
	Other 3/	6,727			
	Woodland	21,486			
	TOTAL 4/	28,864			

- 1/ Parenthetical amounts are duplicated acreages.  
 2/ Calculated from columns 3 and 6; rounded to nearest unit.  
 3/ Farmsteads, farm roads, waste and non-agricultural.  
 4/ Total does not include 1,391 acres of dedicated woodland.



Basin: Boeuf & Tensas Rivers  
 & Bayou Macon  
 Project: Big & Colewa  
 Reach: BC-2  
 State: Louisiana

SUMMARY - TABLE III B  
 (Zone for Drainage and Flood Control Calculations)  
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS,  
 AND NET RETURNS; FUTURE CONDITIONS WITHOUT PROJECT (Based on projected prices)

(1) Soil unit	(2) Land use and crop distribution	(3) Acres	(4) Unit	(5) PRODUCTION Per acre	(6) Total	(7) Value of Production Per unit	(8) Total	(9) Cost of production Per acre	(10) Total	(11) Net Return
All	Open Land Crops 7/ 8/ Cotton	9,848 8,865 1,026	lbs. lint + seed bushel	2/ 307 27	315,345	Dollars 30445	Dollars 96,008	Dollars 93.73	Dollars 96,163	Dollars (1,385)6/ -155
	Corn	1,740	bushel	27	47,620	1.50	71,430	29.32	51,013	(20,608)6/ 20,417
	Soybeans	1,020	bushel	16	16,100	2.50	40,250	22.57	23,021	17,229
	Oats (grain)	1,665	bushel	31	52,945	.95	50,298	22.60	37,634	(12,700)6/ 12,664
	Oats (Sup. Past.)	(620)	lbs. beef	188	116,375	0.184	21,413	20.18	12,510	8,903
	Perm. Pasture	2,991	lbs. beef	161	480,757	0.184	88,458	17.17	51,367	37,091
	Idle	423								
	Other 4/	983								
	Woodland	8,505				9.10	77,405	4.77	40,574	36,831
	TOTAL 5/	18,354							6/	134,747

1/ Parenthetical amounts are duplicated acreages.  
 2/ Calculated from columns 3 and 6; rounded to nearest unit.  
 3/ Calculated from columns 3 and 10; rounded to nearest cent.  
 4/ Farmsteads, farm roads, waste and non-agricultural.  
 5/ Total does not include 10,510 acres to remain as woodland, and 1,391 acres dedicated woodland.  
 6/ Adjusted net return to eliminate the effect of negative returns. All negative net returns were considered as zero.  
 7/ Drained: Cotton 19%; Corn 18%; Soybeans 28%; oats (gr.) 27%; Oats (Sup. Past) 29%; Perm. Pasture 17%.  
 8/ Irrigated: Cotton 9%; Corn 8%; Perm. Pasture 2%.

Basin: Boeuf & Tensas Rivers  
& Bayou Macon

Project: Big & Colewa

Reach: BC-2

State: Louisiana

SUMMARY - TABLE IV B  
(Zone for Drainage and Flood Control Calculations)  
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT (Based on projected prices)

(1) Soil unit	(2) Land use, and Crop distribution	(3) Acres	(4) Production		(6) Total	(7) Value of Production		(9) Cost of Production		(11) Net Return
			Unit	Per acre		Per unit	Total	per acre	Total	
All	Open Land	18,354								
	Crops <u>7/</u> <u>8/</u>	16,519								
	Cotton	913	lbs. lint	430	392,325	.30445	119,468	124.26	113,451	(6,769)6/
	Corn	3,280	+ seed							6,017
	Soybeans	2,710	bushel	38	124,280	1.50	186,420	39.09	128,228	58,192
	Oats (Grain)	4,510	bushel	19	51,480	2.50	128,700	25.18	68,233	60,467
	Oats (Sup. Past.)	(1,790)	lbs. beef	36	163,040	.95	154,888	24.56	110,788	44,100
	Soybeans (Following Oats)	(1,030)	lbs. beef	224	401,450	0.184	73,867	24.38	43,638	30,229
	Perm. Pasture	4,998	bushel	17	17,600	2.50	44,000	23.81	24,523	19,477
	Idle	108	lbs. beef	211	1,054,800	0.184	194,083	23.22	116,077	78,006
	Other <u>4/</u>	1,835								
	Woodland									
	TOTAL <u>5/</u>	18,354								297,240

- 1/ Parenthetical amounts are duplicated acreages.
- 2/ Calculated from columns 3 and 6; rounded to nearest unit.
- 3/ Calculated from columns 3 and 10; rounded to nearest cent.
- 4/ Farmsteads, farm roads, waste and non-agricultural.
- 5/ Total does not include 10,510 acres to remain as woodland, and 1,391 acres dedicated woodland.
- 6/ Adjusted net return to eliminate the effect of negative returns. All negative net returns were considered as zero.
- 7/ Drained: Cotton 59%; Corn 54%; Soybeans 77%; Oats (gr.) 78%; Oats (Sup. Past.) 79%; Soybeans (Following Oats) 87%; Perm. Past. 51%.
- 8/ Irrigated: Cotton 27%; Corn 18%; Perm. Pasture 8%.



Basin: Boeuf, & Tensas Rivers  
& Bayou Macon  
 Project: Big & Colewa  
 Reach: BC-2  
 State: Louisiana

SUMMARY - TABLE II C  
 (Zone of No Project Benefit)  
 COMPUTATION OF AGRICULTURAL PRODUCTION: EXISTING CONDITIONS

(1) Soil Unit	(2) Land Use and Crop Distribution	(3) Acres <u>1/</u>	(4) Production		(6) Total
			Unit	Per acre <u>2/</u>	
All	Open Land	273			
	Crops	246			
	Cotton	30	lbs. lint	300	9,000
	Cotton Seed	(30)	ton		8.1
	Corn	45	bushel	30	1,350
	Soybeans	30	bushel	15	450
	Oats (Grain)	20	bushel	30	600
	Oats (Sup. Past.)	15	lbs. beef	200	3,000
	Perm. Pasture	93	lbs. beef	146	13,575
	Idle	13			
	Other <u>3/</u>	27			
	Woodland	973			
	TOTAL	1,246			

- 1/ Parenthetical amounts are duplicated acreages.  
2/ Calculated from columns 3 and 6; rounded to nearest unit.  
3/ Farmsteads, farm roads, waste and non-agricultural.



asin: Boeuf & Tensas Rivers  
 & Bayou Macon  
 roject: Big & Colewa  
 each: BC-2  
 tate: Louisiana

SUMMARY - TABLE III C  
 (Zone of No Project Benefit)  
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION  
 COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT (Based on  
 projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Land use and crop distribution	Acres	Unit	Production	Per acre	Total	Value of Production per unit	Total	Cost of Production Per acre	Total	Net Return
Open Land	273			2/				3/		
Crops	246									
Cotton	10	lbs. lint	300		3,000	.30445	913	89.23	892	21
Corn	55	+ Seed bushel	30		1,650	1.50	2,475	28.70	1,579	896
Soybeans	30	bushel	15		450	2.50	1,125	22.10	663	462
Oats (Grain)	35	bushel	30		1,050	.95	998	21.77	762	236
Oats (Sup. Past.)	(15)	lbs. beef	200		3,000	0.184	552	21.84	328	224
Perm. Pasture	106	lbs. beef	147		15,625	0.184	2,875	15.56	1,649	1,226
Idle	10									
Other	27									
Woodland	-									
Total	273									3,065

- 1/ Parenthetical amounts are duplicated acreages.
- 2/ Calculated from columns 3 and 6; rounded to nearest unit.
- 3/ Calculated from columns 3 and 10; rounded to nearest cent.
- 4/ Farmsteads, farm roads, waste and non-agricultural.
- 5/ Total does not include 973 acres of woodland, as no conversion and/or benefits are expected.

Basin: Boeuf & Tensas Rivers

& Bayou Macon

Project: Big & Colewa

Reach: BC-2

State: Louisiana

TABLE V  
REACH 2 SUMMARY BY SOIL MAPPING UNITS

Soil Unit	Acres	Future without project (Production in dollars)			Future with project <sup>1/</sup> (Production in dollars)			Difference in net production
		Gross	Cost	Net 1/	Gross	Cost	Net 1/	
1	111	1,793	1,261	558	5,337	3,306	2,031	1,473
1a	578	6,543	4,963	2,084	22,836	14,031	8,805	6,721
2	880	33,539	25,779	8,042	63,039	40,902	22,137	14,095
5	631	32,212	23,499	8,713	53,522	33,975	19,547	10,834
5u	1,240	45,270	34,212	11,058	77,973	50,285	27,688	16,630
9s	4,515	200,905	150,493	52,229	255,653	165,888	89,765	37,536
9su	241	9,823	7,470	2,353	12,766	8,161	4,605	2,252
10	4,885	67,151	53,194	21,619	231,450	159,576	71,874	50,255
10u	31,837	854,357	679,186	184,362	1,822,080	1,261,041	561,039	376,677
Subtotal	44,918	2/1,251,593	980,057	291,018	2,544,656	1,737,165	807,491	516,473
Zones B and C - (Subject to Flooding)								
1a	1,975	21,827	12,767	9,368	42,354	29,770	12,744	3,376
2	311	14,532	9,671	4,861	17,229	10,315	6,914	2,053
5u	5,212	120,277	81,160	39,117	323,273	207,058	116,215	77,093
9s	402	17,724	11,349	6,375	22,057	13,807	8,299	1,924
10	4,426	64,519	40,497	25,481	150,418	99,334	51,627	26,146
10u	6,301	215,321	162,711	52,610	355,033	250,527	104,506	51,896
Subtotal	18,627	454,200	318,155	137,812	910,364	610,811	300,305	162,493
TOTAL	63,545	1,705,793	1,298,212	428,830	3,455,020	2,347,976	1,107,796	678,966

<sup>1/</sup> Adjusted to eliminate negative net returns.

<sup>2/</sup> Total acreage of Zone A reduced by 9,639 acres already drained; 4,850 acres expected to be drained, future without project; 13,911 acres open land not expected to participate in drainage program; 15,942 acres to remain in woodland and 4,446 acres dedicated woodland. Total acres in reach BC-2 Zone A - 93,706.

<sup>3/</sup> Does not include 10,510 acres to remain as woodland; and 1,391 acres dedicated woodland in Zone B; and does not include 973 acres to remain in woodland in Zone C.

<sup>4/</sup> Includes Zone C which is assumed to be the same as future conditions without project.



Basin: Boeuf & Tensas Rivers  
 & Bayou Macon  
 Project: Big & Colewa  
 Reach: BC-2  
 State: Louisiana

TABLE VI  
 LAND CONVERSION WITH PROJECT

(1) Type of Conversion	(2) Total amount Acres	(3) Cost of clearing Dollars	(4) Cost of smoothing Dollars	(5) Cost of pasture es- tablishment Dollars	(6) Cost of irrigation system Dollars	(7) Total Cost Dollars
Woods to Other Land	2,228	129,224	xx	xx	xx	129,224
Woods to General Crops	16,774	972,892	33,548	xx	xx	1,006,440
Woods to Irrigated Crops (Rice Only)	xx	xx	xx	xx	xx	xx
Woods to Pasture	3,288	190,704	xx	87,132	xx	277,836
Pasture to General Crops	37	xx	74	xx	xx	74
Pasture to Irrigated Crops (Rice Only)	xx	xx	xx	xx	xx	xx
General Crops to Irrigated Crops (Rice Only)	xx	xx	xx	xx	xx	xx
General Crops to Pasture	149	xx	xx	3,948	xx	3,948
TOTAL FOR REACH BC-2						1,417,522
Annual Amortized Value (.05478)						77,652
Annual Maintenance Pasture						31,517



Basin: Boeuf & Tensas Rivers  
 & Bayou Macon  
 PROJECT: Big & Colewa  
 REACH: BC-2  
 STATE: Louisiana

TABLE VII  
 ANALYSIS OF FARM DRAINAGE SYSTEM COSTS

Zone A & B Combined														
Soil Mapping Unit and Land Use	Area	Construction Per Acre	Cost Total	Engineer- ing Cost	Contin- gency Cost	Total Cost Installa-	Annual Equiva- lent Inst. Cost 1/	Annual Mainte- nance Cost	Total Annual Cost					
	Acres	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars					
1 & 1a - Cropland Pasture	618 433	13.28 7.16	8,207 3,100	1,641 620	821 310	10,669 4,030	1,382 522	1,231 93	2,613 615					
2 - Cropland Pasture	731 181	11.51 7.16	8,414 1,296	1,682 259	841 130	10,937 1,685	1,416 218	1,262 39	2,678 257					
5 & 5U - Cropland Pasture	4,520 745	10.23 6.26	46,240 4,664	9,248 933	4,624 466	60,112 6,063	7,785 785	6,936 140	14,721 925					
9S & 9SU - Cropland Pasture	3,306 1,067	10.13 7.46	33,490 7,960	6,698 1,592	3,349 796	43,537 10,348	5,638 1,340	5,023 239	10,661 1,579					
10 - Cropland Pasture	2,958 3,360	13.13 6.79	38,838 22,814	7,768 4,563	3,884 2,281	50,490 29,658	6,538 3,841	5,828 1,141	12,366 4,982					
10U - Cropland Pasture	26,609 5,747	11.46 7.30	304,939 41,953	60,988 8,391	30,494 4,195	396,421 54,539	51,337 7,063	45,741 1,259	97,078 8,322					
TOTAL REACH BC-2	50,275		521,915	104,383	52,191	678,489	87,865	68,932	156,797					

1/ Amortized at 5% for 10 year period. (.12950)

Basin: Boeuf & Tensas Rivers  
 & Bayou Macon  
 Project: Big & Colewa  
 Reach: BC-2  
 State: Louisiana

TABLE IX  
 SUMMARY OF ANNUAL NET PRODUCTION RETURNS AND ASSOCIATED COSTS

(1) Item	(2) Total	(3) Discounted Amount
	<u>Dollars</u>	<u>Dollars</u>
1. Net return with project	1,104,731	
2. Net return without project	425,765	
3. Gross benefit to project	678,966	538,250
4. Farm Drainage Cost		
a. Installation Cost	87,865	
b. Maintenance Cost	68,932	
c. Total Cost	156,797	124,301
5. Group Drainage Cost		
a. Installation Cost	0	
b. Maintenance Cost	0	
c. Total Cost	0	
6. Conversion Cost		
a. Installation Cost	77,652	
b. Maintenance Cost	31,517	
c. Total Cost	109,169	86,544

Basin: Boeuf & Tensas Rivers & Bayou Macon  
 Project: Big & Colewa  
 Reach: BC-3  
 State: Louisiana

TABLE I  
 PRESENT LAND USE

Zone	Soil map- ing unit	Open (Acres)	Wooded (Acres)	Miscella- neous (Acres)	Total (Acres)
Zone A	1	193	63	-	256
	1a	199	654	-	853
	5	81	-	-	81
	5U	37	85	-	122
	8f	167	49	-	216
	9	528	-	-	528
	9S	3,880	110	-	3,990
	9U	3,780	56	-	3,836
	9SU	511	-	-	511
	10	819	835	-	1,654
	10S	189	-	-	189
	10U	3,131	862	-	3,993
Subtotal - all soils		13,515	2,714	-	16,229
Water		-	-	-	-
Urban		-	-	280	280
Total - Zone A		13,515	2,714	280	16,509
Zone B	1	367	199	-	566
	1a	81	915	-	996
	5	261	-	-	261
	5U	1,375	933	-	2,308
	8f	165	-	-	165
	9S	365	91	-	456
	9U	80	-	-	80
	10	50	-	-	50
	10S	12	-	-	12
	10U	258	171	-	429
	11	43	-	-	43
Subtotal - all soils		3,057	2,309	-	5,366
Water		-	-	-	-
Urban		-	-	-	-
Total - Zone B		3,057	2,309	-	5,366
Zone C	1	277	722	-	999
	1a	-	2,973	-	2,973
	5	600	-	-	600
	5U	169	344	-	513
Subtotal - all soils		1,046	4,039	-	5,085
Water		-	-	-	-
Urban		-	-	-	-
Total - Zone C		1,046	4,039	-	5,085
Reach Total - all soils		17,618	9,062	-	26,680
Urban		-	-	280	280
Grand Total		17,618	9,062	280	27,240
		116.			



Basin: Boeuf & Tensas Rivers & Bayou Macon

Project: Big & Colewa

Reach: BC-3

State: Louisiana

SUMMARY - TABLE II A  
(Zone for Drainage Calculations Only)  
COMPUTATION OF AGRICULTURAL PRODUCTION

Soil unit	Land Use and crop distribution	Acres <u>1/</u>	Production		
			Unit	per acre	Total
All	Open Land	12,388		<u>2/</u>	
	Crops	11,152			
	Cotton	3,995	lbs. lint	266	1,062,000
	Cotton Seed	(3,995)	ton		955.80
	Corn	1,789	bushel	22	39,285
	Soybeans	380	bushel	17	6,350
	Oats (Grain)	1,008	bushel	33	33,560
	Oats (Sup. Past.)	740	lbs. beef	218	161,000
	Soybeans (Following Oats)	(200)	bushel	14	2,850
	Perm. Pasture	2,610	lbs. beef	169	441,650
	Idle	630			
	Other <u>3/</u>	1,236			
	Woodland	2,714			
	TOTAL <u>4/</u>	15,102			

1/ Parenthetical amounts are duplicated acreages.

2/ Calculated from columns 3 and 6; rounded to nearest unit.

3/ Farmsteads, farm roads, waste and non-agricultural.

4/ Total does not include 1,127 acres already drained.

Basin: Boeuf & Tensas Rivers  
 & Bayou Macon  
 Project: Big & Colewa  
 Reach: BC-3  
 State: Louisiana

SUMMARY - TABLE III A  
 (Zone for Drainage Calculations Only)

COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS, AND NET RETURNS, FUTURE CONDITIONS WITHOUT PROJECT (Based on projected prices)

(1) Soil unit	(2) Land use and crop distribution	(3) Acres	(4) Unit	(5) Production Per acre	(6) Total	(7) Value of production Per unit Dollars	(8) Total Dollars	(9) Cost of production per acre Dollars	(10) Total Dollars	(11) Net Return Dollars
ALL	Open Land	7,598		2/				3/		
	Crops	6,842								(354)6/
	Cotton	570	lbs, lint	263	149,950	.30445	45,652	81.25	46,314	-662
	Corn	989	+ seed bushel	21	21,148	1.50	31,723	24.05	23,782	(8,211)6/
	Soybeans	985	bushel	18	17,735	2.50	44,338	24.47	24,103	7,941
	Oats (grain)	1,546	bushel	33	51,610	.95	49,030	23.35	36,106	(20,243)5/
	Oats (Sup. Past)	(506)	lbs, beef	219	110,750	0.184	20,378	23.54	11,909	12,924
	Perm. Pasture	2,541	lbs, beef	175	444,475	0.184	81,782	18.84	47,884	8,469
	Idle	211								33,898
	Other	756								
	Woodland	820				5.61	4,599	2.87	2,353	2,246
	TOTAL	8,418							6/	86,345

- 1/ Parenthetical amounts are duplicated acreages.
  - 2/ Calculated from columns 3 and 6; rounded to nearest unit.
  - 3/ Calculated from columns 3 and 10; rounded to nearest cent.
  - 4/ Farmsteads, farm roads, waste and non-agricultural.
  - 5/ Total does not include 1,127 acres already drained; 3,395 acres expected to be drained, future without project; 2,226 acres open land not expected to participate in drainage program; 1,063 acres to remain as woodland and total does not include 280 acres urban.
  - 6/ Adjusted net return to eliminate the effect of negative returns.
- ALL negative net returns were considered as zero.



SUMMARY - TABLE IV A  
(Zone for Drainage Calculations Only)  
COMPUTATION OF AGRICULTURAL PRODUCTION: VALUE OF PRODUCTION, PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT (Based on projected prices)

(1) Soil unit	(2) Land use and crop distribution	(3) Acres	(4) Unit	(5) Production Per acre	(6) Total	(7) Value of production Per Unit	(8) Total	(9) Cost of production Per acre	(10) Total	(11) Net Return
111	Open Land Crops <u>7/ 8/</u> Cotton	8,418 7,580 359	lbs. lint + Seed	<u>2/</u> 432	154,960	.30445	47,181	124.01	44,521	(2,670)6/ 2,660
	Corn	1,340	bushel	41	54,895	1.50	82,343	40.61	54,420	27,923
	Soybeans	1,080	bushel	22	24,225	2.50	60,562	27.77	29,987	30,575
	Oats (Grain)	1,920	bushel	40	76,315	.95	72,499	26.31	50,538	21,961
	Oats (Sup. Past.)	(625)	lbs. beef	248	155,000	0.184	28,520	26.59	16,619	11,901
	Soybeans (Fol- lowing Oats)	(415)	bushel	18	7,300	2.50	18,250	24.31	10,087	8,163
	Perm. Pasture	2,839	lbs. beef	270	766,120	0.184	142,806	29.87	84,814	57,992
	Idle	42								
	Other	838								
	Woodland	-								
	TOTAL <u>5/</u>	8,418							<u>6/</u>	161,185

Parentnetical amounts are duplicated acreages.

Calculated from columns 3 and 6; rounded to nearest unit.

Calculated from columns 3 and 10; rounded to nearest cent.

Farmsteads, farm roads, waste and non-agricultural.

Total does not include 1,127 acres already drained; 3,395 acres expected to be drained, future without project; 2,226 acres open land not expected to participate in drainage program; and 1,063 acres to remain in woodland. Total does not include 280 acres urban.

Adjusted net return to eliminate the effect of negative returns. All negative net returns were considered as zero.

Drained: Cotton 73%; Corn 75%; Soybeans, Oats (gr.); Oats (Sup. Past), Soybeans (Fol. Oats) all 100%;

Perm. Pasture 93%.

Irrigated: Cotton 27%; Corn 25%; Perm. Pasture 7%.



Basin: Boeuf & Tensas Rivers  
 & Bayou Macon  
 Project: Big & Colewa  
 Reach: BC-3  
 State: Louisiana

SUMMARY - TABLE II B  
 (Zone for Drainage and Flood Control Calculations)  
 COMPUTATION OF AGRICULTURAL PRODUCTION

(1)	(2)	(3)	(4)	(5)	(6)
Soil unit	Land use and crop distribution	Acres <u>1/</u>	PRODUCTION		
			Unit	Per acre <u>2/</u>	Total
All	Open Land	3,057			
	Crops	2,752			
	Cotton	975	lbs.lint	296	288,450
	Cotton Seed	(975)	ton		259.62
	Corn	300	bushel	27	8,170
	Soybeans	120	bushel	18	2,105
	Oats (Grain)	70	bushel	36	2,520
	Oats (Sup. Past.)	80	lbs.beef	238	19,000
	Soybeans (Following Oats)	(10)	bushel	18	180
	Perm. Pasture	1,049	lbs.beef	163	171,276
	Idle	158			
	Other <u>3/</u>	305			
	Woodland	2,309			
	TOTAL	5,366			

- 1/ Parenthetical amounts are duplicated acreages.  
2/ Calculated from columns 3 and 6; rounded to nearest unit.  
3/ Farmsteads, farm roads, waste and non-agricultural.

Basin: Boeuf & Tensas Rivers

& Bayou Macon

Project: Big & Colewa

Reach: BC-3

State: Louisiana

SUMMARY - TABLE III B

(Zone for Drainage and Flood Control Calculations)

COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT (Based on projected prices)

(1) Soil unit	(2) Land use and crop distribution	(3) Acres	(4) Unit	(5) Production Per Acre	(6) Total	(7) Value of production Per Unit	(8) Total	(9) Cost of production per acre	(10) Total	(11) Net Return
All	Open Land	3,357								
	Crops <u>7/</u> <u>8/</u>	3,025								
	Cotton	735	lbs. lint	<u>2/</u> 338	248,275	.3045	75,585	<u>3/</u> 98.89	72,686	(3,099) <u>6/</u>
	Corn	572	+ seed							2,899
	Soybeans	252	bushel	32	18,589	1.50	27,884	31.64	18,096	9,788
	Oats (Grain)	250	bushel	19	4,725	2.50	11,814	24.69	6,223	5,591
	Oats (Sup. Past.)	(80)	lbs. beef	35	8,780	.95	8,341	24.07	6,018	2,323
	Perm. Pasture	1,118	lbs. beef	240	19,200	0.184	3,533	25.79	2,063	1,470
	Idle	98	lbs. beef	183	204,045	0.184	37,545	19.81	22,153	15,392
	Other	332								
	Woodland	807				5.61	4,527	2.87	2,316	2,211
	TOTAL <u>5/</u>	4,164							<u>6/</u>	39,874

1/ Parenthetical amounts are duplicated acreages.

2/ Calculated from columns 3 and 6; rounded to nearest unit.

3/ Calculated from columns 3 and 10; rounded to nearest cent.

4/ Farmsteads, farm roads, waste and non-agricultural.

5/ Total does not include 1,202 acres to remain as woodland.

6/ Adjusted net return to eliminate the effect of negative returns, All negative net returns were considered as zero.

7/ Drained: Cotton 12%; Corn 13%; Soybeans 24%; Oats (gr.) 19%; Oats (Sup. Past.) 19%; Perm. Pasture 17%.

8/ Irrigated: Cotton 7%; Corn 7%; Perm. Pasture, 2%.



Basin: Boeuf & Tensas Rivers  
 & Bayou Macon  
 Project: Big & Colewa  
 Reach: BC-3  
 State: Louisiana

SUMMARY - TABLE IV B  
 (Zone for Drainage and Flood Control Calculations)  
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION  
 COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT (Based on projected  
 prices)

(1) Soil Unit	(2) Land use and crop distribution	(3) Acres 1/	(4) Unit	(5) Production Per acre	(6) Total	(7) Value of production Per unit	(8) Total	(9) Cost of production Per acre	(10) Total	(11) Net Return
						Dollars	Dollars	Dollars	Dollars	Dollars
ALL	Open Land	4,164		2/				3/		
	Crops 7/ 8/	3,750								(4,190) 6/
	Cotton	339	lbs. lint	496	168,230	.30445	51,216	138.72	47,027	4,189
	Corn	712	bushel	46	32,514	1.50	48,772	43.89	31,247	17,525
	Soybeans	515	bushel	23	11,970	2.50	29,925	27.94	14,390	15,535
	Oats (Grain)	872	bushel	38	33,455	.95	31,782	25.56	22,287	9,495
	Oats (Sup. Past.)	(382)	lbs. beef	241	92,200	0.184	16,965	25.81	9,862	7,103
	Soybeans (Fol- lowing Oats)	(120)	bushel	19	2,280	2.50	5,700	25.22	3,026	2,674
	Perm. Pasture	1,312	lbs. beef	240	314,625	0.184	57,891	26.46	34,712	23,179
	Idle	-								
	Other	4/	414							
Woodland		-								
TOTAL	5/	4,164							6/	79,701

1/ Parenthetical amounts are duplicated acreages.  
 2/ Calculated from columns 3 and 6; rounded to nearest unit.  
 3/ Calculated from columns 3 and 10; rounded to nearest cent.  
 4/ Farmsteads, farm roads, waste and non-agricultural.  
 5/ Total does not include 1,202 acres to remain in woodland.  
 6/ Adjusted net return to eliminate the effect of negative return.  
 7/ All negative net returns were considered as zero.  
 8/ Drained: Cotton 55%; Corn 55%; Soybeans 85%; Oats (gr.) 84%; Oats (Sup. Pasture 87%;  
 Soybeans (following oats) 87%; Permanent Pasture 68%.  
 Irrigated: Cotton 32%; Corn 29%; Permanent Pasture 8%.



Basin: Boeuf & Tensas Rivers  
& Bayou Macon

Project: Big & Colewa

Reach: BC-3

State: Louisiana

SUMMARY - TABLE II C  
(Zone of No Project Benefit)  
COMPUTATION OF AGRICULTURAL PRODUCTION: EXISTING CONDITIONS

(1) Soil unit	(2) Land Use and Crop distribution	(3) Acres <u>1/</u>	(4) Unit	(5) Production Per Acre <u>2/</u>	(6) Total
All	Open Land	1,046			
	Crops	942			
	Cotton	35	lbs. lint	286	10,000
	Cotton Seed	(35)	ton		9.1
	Corn	81	bushel	30	2,468
	Soybeans	30	bushel	18	550
	Oats (Grain)	31	bushel	36	1,116
	Perm. Pasture	696	lbs. beef	190	132,050
	Idle	69			
	Other <u>3/</u>	104			
	Woodland	4,039			
	TOTAL	5,085			

1/ Parenthetical amounts are duplicated acreages.

2/ Calculated from columns 3 and 6; rounded to nearest unit.

3/ Farmsteads, farm roads, waste and non-agricultural.

Basin: Boeuf & Tensas Rivers  
& Bayou Macon  
 Project: Big & Colewa  
 Reach: BC-3  
 State: Louisiana

SUMMARY - TABLE III & IV C  
 (Zone of No Project Benefit)  
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION  
 COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT (Based on  
 projected prices)

(1) Soil Unit	(2) Land Use and Crop distribution	(3) Acres	(4) Production Unit	(5) Per acre	(6) Total	(7) Per unit of production	(8) Value of production Total	(9) Cost of production Per acre	(10) Cost Total	(11) Net Return
ALL	Open Land	1,046	lbs. lint	287	5,750	.30445	1,751	87.05	1,741	(55) 5/10
	Crops	942	+ seed	30	2,913	1.50	4,370	28.89	2,773	1,597
	Cotton	20								
	Corn	96	bushel	18	550	2.50	1,375	24.63	739	636
	Soybeans	30	bushel	36	1,080	0.95	1,026	21.77	653	373
	Oats (Grain)	30	bushel	190	136,275	0.184	25,075	20.48	14,682	10,393
	Perm. Pasture	717	lbs. beef							
	Idle	49								
	Other	104								
	Woodland	-								
	TOTAL	1,046							5/	13,054

- 1/ Calculated from columns 3 and 6; rounded to nearest unit.
  - 2/ Calculated from columns 3 and 10; rounded to nearest cent.
  - 3/ Farmsteads, farm roads, waste and non-agricultural.
  - 4/ Total does not include 4,039 acres of woodland, as no conversion and/or benefits are expected.
  - 5/ Adjusted net return to eliminate the effect of negative returns.
- All negative net returns were considered as zero.

Basin: Boeuf & Tensas Rivers

& Bayou Macon

Project: Big & Colewa

Reach: BC-3

State: Louisiana

TABLE V  
REACH 3 SUMMARY BY SOIL MAPPING UNITS

Soil	Acres	Future without project (Production in dollars)		Future with project (Production in dollars)		Difference in net production
		Gross	Cost	Net 1/	Cost	Net 1/
1	76	1,649	1,261	433	2,466	1,304
1a	79	760	637	189	1,750	1,018
5	18	1,048	812	236	1,396	485
5U	56	882	525	357	1,554	890
8f	80	2,044	1,193	851	1,863	1,317
9	177	6,416	4,300	2,116	7,137	4,081
9S	2,666	107,017	71,425	35,999	141,678	53,214
9SU	264	9,807	6,478	3,329	13,016	5,076
9U	1,882	70,363	49,207	21,156	109,131	39,756
10	513	6,636	5,106	1,879	23,315	7,557
10S	87	2,060	1,292	768	4,288	1,525
10U	2,520	68,820	50,215	19,032	135,472	44,962
Subtotal	8,418 2/	277,502	192,451	86,345	452,161	161,185
Zones B & C - (Subject to flooding)						
1	753	14,864	9,313	5,665	14,948	8,770
1a	172	1,560	827	733	2,487	817
5	861	36,226	22,814	13,412	25,107	15,981
5U	2,257	105,684	86,671	19,013	150,941	47,067
8f	165	4,661	2,721	1,940	5,346	2,181
9S	445	19,438	13,855	5,714	23,537	7,949
9U	80	4,316	3,091	1,225	4,594	1,558
10	50	1,288	1,005	283	1,915	582
10S	12	288	195	93	611	206
10U	372	11,042	7,384	3,658	17,097	6,354
11	43	3,459	2,267	1,192	2,452	1,290
Subtotal	5,210 3/	202,826	150,143	52,928	275,848	92,755
TOTAL	13,628	480,328	342,594	139,273	728,009	253,940
					474,125	114,667



Basin: Boeuf & Tensas Rivers  
& Bayou Macon  
Project: Big & Colewa  
Reach: BC-3  
State: Louisiana

TABLE V  
REACH 3 SUMMARY BY SOIL MAPPING UNITS  
(Footnotes)

- 1/ Adjusted to eliminate negative net returns.
- 2/ Does not include 1,127 acres already drained; 3,395 acres expected to be drained, future without project; 2,226 acres open land not expected to participate in drainage program; 1,063 acres to remain in woodland; and 280 acres of urban land. Total acres Zone A - 16,509.
- 3/ Does not include 1,202 acres to remain in woodland in Zone B. Total acres Zone B - 5,366. Does not include 4,039 acres to remain in woodland Zone C. Total acres Zone C - 5,085.
- 4/ Includes Zone C which is assumed to be the same as future conditions without project.

Basin: Boeuf & Tensas Rivers  
& Bayou Macon  
 Project: Big & Colewa  
 Reach: BC-3  
 State: Louisiana

TABLE VI  
 LAND CONVERSION WITH PROJECT

Type of Conversion	Total amount Acres	Cost of Clearing Dollars	Cost of Smoothing Dollars	Cost of Pasture es- tablishment Dollars	Cost of irrigation system Dollars	Total Cost Dollars
Woods to Other Land	162	9,396	xx	xx	xx	9,396
Woods to General Crops	1,054	61,132	2,108	xx	xx	63,240
Woods to Irrigated Crops (Rice Only)	xx	xx	xx	xx	xx	xx
Woods to Pasture	411	23,838	xx	12,330	xx	36,168
Pasture to General Crops	4	xx	8	xx	xx	8
Pasture to Irrigated Crops	xx	xx	xx	xx	xx	xx
General Crops to Irrigated Crops (Rice Only)	xx	xx	xx	xx	xx	xx
General Crops to Pasture	28	xx	xx	840	xx	840
TOTAL FOR REACH BC-3						
Annual Amortized Value (.05478)	109					109,652
Annual Maintenance Pasture						6,007
						4,451

Basin: Boeuf & Tensas Rivers  
 & Bayou Macon  
 Project: Big & Colewa  
 Reach: BC-3  
 State: Louisiana

TABLE VII  
 ANALYSIS OF FARM DRAINAGE SYSTEM COSTS

Zone A & B Combined

Soil Mapping Unit and Land Use	Area	Construction Cost Per Acre	Construction Cost Total	Engineering Cost	Contin- gency Cost	Total Cost Installation	Annual Equivalent Inst. Cost 1/	Annual Maintenance Cost	Total Annual Cost
1 & 1a - Cropland Pasture	Acre 188 229	Dollars 13.28 7.16	Dollars 2,497 1,640	Dollars 499 328	Dollars 250 164	Dollars 3,246 2,132	Dollars 420 276	Dollars 375 49	Dollars 795 325
5 & 5U - Cropland Pasture	1,309 334	10.23 6.26	13,391 2,091	2,678 418	1,339 209	17,408 2,718	2,254 352	2,008 63	4,262 415
8f - Cropland Pasture	- 147	- 6.79	- 998	- 200	- 100	- 1,298	- 168	- 0 30	- 198
9 - Cropland Pasture	103 57	11.46 7.46	1,180 426	236 85	118 43	1,534 554	199 72	177 13	376 85
9S, 9U, 9SU - Cropland Pasture	2,807 1,843	10.13 7.46	28,435 13,749	5,687 2,750	2,843 1,375	36,965 17,874	4,787 2,315	4,265 412	9,052 2,727
10 - Cropland Pasture	327 148	13.13 6.79	4,293 1,005	859 201	429 100	5,581 1,306	723 169	644 50	1,367 219
10S & 10U - Cropland Pasture	1,686 856	11.46 7.30	19,322 6,249	3,864 1,250	1,932 625	25,118 8,124	3,253 1,052	2,898 187	6,151 1,239
TOTAL REACH BC-3	10,034		95,276	19,055	9,527	123,858	16,040	11,171	27,211

1/ Amortized at 5% for 10 years (.12950)



Basin: Boeuf & Tensas Rivers  
& Bayou Macon  
 Project: Big & Colewa  
 Reach: BC-3  
 State: Louisiana

TABLE VIII  
 ANALYSIS OF GROUP DRAINAGE NEEDS AND COSTS

Item	Unit	Amount	Unit Cost	Total Cost
Excavation	Cu. yds	23,367	<u>Dollars</u> 0.15	<u>Dollars</u> 3,505.05
<u>1/</u> Shaping or Spreading Spoil				
<u>1/</u> Clearing right-of-way				
Right-of-way easements	miles	3.49	20.00	69.80
Crossings	each	3	150.00	450.00
Grade Control Structures	each	-	-	-
Water Gates	each	4	40.00	160.00
Vegetative Plantings	acres	8.5	13.00	110.50
Total Construction Cost				4,295.35
Engineering Cost				429.54
Contingencies & Legal				429.54
Total Installation Cost				5,154.43
Annual Equivalent - Installation Cost (Amortized for 20 years at $3\frac{1}{2}$ percent)				362.66
Annual Maintenance Cost				214.77
Total Annual Cost of Required Group Facilities				577.43

1/ These items included in excavation costs under normal contract procedure.

Basin: Boeuf & Tensas Rivers  
& Bayou Macon  
Project: Big & Colewa  
Reach: BC-3  
State: Louisiana

TABLE IX

SUMMARY OF ANNUAL NET PRODUCTION RETURNS AND ASSOCIATED COSTS

(1) Item	(2) Total <u>Dollars</u>	(3) Discounted Amount <u>Dollars</u>
1. Net return with project	240,886	
2. Net return without project	126,219	
3. Gross benefit to project	114,667	90,902
4. Farm Drainage Cost		
a. Installation Cost	16,040	
b. Maintenance Cost	11,171	
c. Total Cost	27,211	21,572
5. Group Drainage Cost		
a. Installation Cost	363	
b. Maintenance Cost	215	
c. Total Cost	578	578
6. Conversion Cost		
a. Installation Cost	6,007	
b. Maintenance Cost	4,451	
c. Total Cost	10,458	8,290

TABLE V  
PROJECT AREA SUMMARY BY SOIL MAPPING UNITS  
FOR REACH 1, 2 & 3

Soil Unit	Acres	Future without project (production in dollars)			Future with project 1/ (production in dollars)			Difference in net production
		Gross	Cost	Net 1/ Zone A - (Not subject to flooding)	Gross	Cost	Net 1/ Zone B & C - (Subject to flooding)	
1	187	3,442	2,522	991	9,107	5,772	3,335	2,344
1a	657	7,303	5,600	2,273	25,604	15,781	9,823	7,550
2	951	36,440	28,219	8,546	68,190	44,327	23,863	15,317
5	649	33,260	24,311	8,949	55,403	35,371	20,032	11,083
5U	1,296	46,152	34,737	11,415	80,417	51,839	28,578	17,163
8f	80	2,044	1,193	851	3,180	1,863	1,317	466
9	177	6,416	4,300	2,116	11,218	7,137	4,081	1,965
9S	9,070	383,587	277,539	108,859	499,687	324,457	175,230	66,371
9U	2,178	79,686	55,596	24,090	125,128	79,524	45,604	21,514
9SU	505	19,630	13,948	5,682	25,782	16,111	9,681	3,999
10	6,617	92,622	72,875	29,202	310,571	212,432	98,139	68,937
10S	87	2,060	1,292	768	4,288	2,763	1,525	757
10U	54,035	1,421,451	1,104,741	329,748	3,043,442	2,078,809	964,633	634,885
Subtotal 2/	76,489	2,134,093	1,626,873	533,490	4,262,017	2,876,186	1,385,841	852,351
1	753	14,864	9,313	5,665	23,673	14,948	8,770	3,105
1a	2,166	23,608	13,713	10,203	45,879	32,376	13,663	3,460
2	652	26,915	18,878	8,059	38,140	23,676	14,486	6,427
5	861	36,226	22,814	13,412	41,088	25,107	15,981	2,569
5U	7,469	225,961	167,831	58,130	474,214	310,932	163,282	105,152
8f	165	4,661	2,721	1,940	5,346	3,165	2,181	241
9S	1,537	67,960	46,464	21,740	85,440	55,286	30,203	8,463
9U	80	4,316	3,091	1,225	4,594	3,037	1,558	333
10	6,104	94,221	63,957	33,510	201,928	136,410	67,075	33,565
10S	12	288	195	93	611	405	206	113
10U	15,879	501,359	384,641	118,125	838,607	581,639	257,053	138,928
11	43	3,459	2,267	1,192	3,742	2,452	1,290	98
Subtotal 3/	35,721	1,003,838	735,885	273,294	1,763,262	1,189,433	575,748	302,454
TOTAL	112,210	3,137,931	2,362,758	806,784	6,025,279	4,065,619	1,961,589	1,154,805



Basin:	<u>Boeuf &amp; Tensas Rivers</u>
	<u>&amp; Bayou Macon</u>
Project:	<u>Big - Colewa</u>
Reach:	<u>BC-1, 2 &amp; 3 (All)</u>
State:	<u>Louisiana</u>

TABLE V  
PROJECT AREA SUMMARY BY SOIL MAPPING UNITS  
FOR REACH 1, 2 & 3  
(Footnotes)

- 1/ Adjusted to eliminate negative returns.
- 2/ Total area of Zone A reduced by 10,796 acres already drained, 12,285 acres expected to be drained, future without project; 21,547 acres open land not expected to participate in drainage program; 20,682 acres to remain in woodland; and 4,446 acres dedicated woodland, and 280 acres of urban land. Total acres in Zone A - 146,525.
- 3/ Total area of Zone B does not include 13,624 acres expected to remain in woodland and 1,391 acres dedicated woodland. Total acres in Zone B - 48,402.  
Total area of Zone C does not include 6,281 acres expected to remain in woodland. Total acres in Zone C - 8,615.
- 4/ Includes Zone C which is assumed to be the same as future conditions without project.

BASIN: Boeuf-Tensas Rivers  
and Bayou Macon  
 PROJECT: Boeuf River &  
Bayou Lafourche  
 REACH: BR-3 - LA. & ARK.  
 STATE: Louisiana

TABLE I  
 PRESENT LAND USE

Zone <u>1/</u>	Soil Map- ping unit	Open (Acres)	Wooded (Acres)	Urban (Acres)	Total (Acres)
Zone B	1	2,736	19,760	-	22,496
	1a	951	63,870	-	64,821
	1U	990	809	-	1,799
	2	537	1,369	-	1,906
	2U	1,999	430	-	2,429
	5	1,197	595	-	1,792
	5U	110	439	-	549
	9S	232	158	-	390
	10	301	402	-	703
	10U	2,284	342	-	2,626
Subtotal - all soils		11,337	88,174	-	99,511
Water		-	-	-	-
Urban		-	-	-	-
Total Zone B		11,337	88,174	-	99,511
Zone C	1	6	1,021	-	1,027
Subtotal - all soils		6	1,021	-	1,027
Water		-	-	-	-
Urban		-	-	-	-
Total Zone C		6	1,021	-	1,027
Reach Total - all soils		11,343	89,195	-	100,538

1/ No Zone A Benefits

BASIN: Boeuf-Tensas Rivers  
and Bayou Macon  
 PROJECT: Boeuf River &  
Bayou Lafourche  
 REACH: BR-3  
 STATE: Louisiana & Arkansas

SUMMARY- TABLE II B  
 (Zone for Drainage and Flood Control Calculations)  
 COMPUTATION OF AGRICULTURAL PRODUCTION

(1)	(2)	(3)	(4)	(5)	(6)
Soil Unit	Land use and crop distribution	Acres 4/	Production		Total
			Unit	Per acre	
All	Open Land	11,337		3/	
	Crops	10,203			
	Cotton	1,325	lbs.	285	378,155
	Corn	1,770	bu.	26	45,770
	Soybeans	1,325	bu.	18	23,200
	Oats (Grain)	1,885	bu.	28	52,940
	Oats (Sup.Pasts)	(880)	lbs.beef	174	153,135
	Soybeans (following Oats)	(300)	bu.	13	3,910
	Perm. Pasture	3,428	lbs.beef	164	562,875
	Idle	470			
	Other 2/	1,134			
Woodland	43,818				
	TOTAL 1/	55,155			

- 1/ Total does not include 44,356 acres dedicated woodland.  
 2/ Farmsteads, farm roads, waste and non-agricultural.  
 3/ Calculated from columns 2 and 5; rounded to nearest unit.  
 4/ Parenthetical amounts are duplicated acreages.



BASIN: Boeuf-Tensas Rivers  
and Bayou Macon

PROJECT: Boeuf River &  
Bayou Lafourche

REACH: BR-3

STATE: Louisiana & Arkansas

SUMMARY - TABLE IIIB

(Zone for Drainage and Flood Control Calculations)  
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS,  
AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT (Based on projected prices)

(1) Soil Unit	(2) Land use and crop distribution	(3) Acres 6/	(4) Unit	(5) Production Per acre	(6) Total	(7) Value of production Per unit	(8) Total	(9) Cost of production Per acre	(10) Total	(11) Net return
A11	Open Land	12,837		3/				4/		3,893
	Crops 6/ 7/	11,553								5/(4,823)
	Cotton	780	lbs.	333	260,050	.30445	79,173	96.51	75,280	32,827
	Corn	2,150	bu.	30	63,710	1.50	95,565	29.18	62,738	51,403
	Soybeans	2,610	bu.	17	45,330	2.50	113,325	23.72	61,922	11,488
	Oats (Grain)	2,100	bu.	28	57,760	.95	54,872	20.66	43,384	13,047
	Oats (Sup. Pas.)	(870)	lbs.beef	168	145,950	0.184	26,855	15.87	13,808	
	Soybeans (Following Oats)	(170)	bu.	11	1,950	2.50	4,875	18.62	3,166	1,709
	Perm. Pasture	3,352	lbs.beef	171	574,800	0.184	105,763	16.19	54,261	51,502
	Idle	561								
	Other	1,284								
	Woodland 2/	20,074				7.87	157,981	4.31	86,518	71,463
	TOTAL 1/	32,911					638,409		401,077	5/238,262

1/ Total does not include 22,244 acres to remain in woodland and 44,356 acres dedicated woodland.

2/ Farmsteads, farm roads, waste and non-agricultural.

3/ Calculated from columns 2 and 5; rounded to nearest unit.

4/ Calculated from columns 2 and 9; rounded to nearest cent.

5/ Parenthetical amounts are duplicated acreages.

6/ Drainage: Cotton 17%; Corn 18%; Soybeans 22%; Oats 21%; Oats (Sup.Past.) 20%; Soybeans (Following

oats) 18%; Perm. Pasture 18%;

8/ Irrigation: Cotton 9%; Corn 5%.

BASIN: Boeuf- Tensas Rivers  
 and Bayou Macon  
 PROJECT: Boeuf River &  
 Bayou Lafourche  
 REACH: ER-3  
 STATE: Louisiana & Arkansas

SUMMARY - TABLE IV B  
 (Zone for Drainage and Flood Control Calculations)  
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS,  
 AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT (Based on projected prices)

(1) Soil Unit	(2) Land use and crop distribution	(3) Acres 6/	(4) Unit	(5) Production Per Acre	(6) Total	(7) Value of production Per unit Dollars	(8) Total Dollars	(9) Cost of production Per acre Dollars	(10) Total Dollars	(11) Net return Dollars
All	Open Land	32,911		3/						
	Crops 7/ 8/	29,619								18,170
	Cotton	1,170	lbs.	450	527,000	.30445	160,446	121,60	142,276	5/(18,189)
	Corn	6,615	bu.	33	219,660	1.50	329,490	31.55	208,684	120,806
	Soybeans	9,510	bu.	20	190,400	2.50	476,000	25.80	245,357	230,643
	Oats (Grain)	5,310	bu.	36	189,020	.95	179,569	24.76	131,469	48,100
	Oats (Sup.Pas.)	4,225	lbs.beef	189	798,400	0.184	146,906	17.88	75,544	71,362
	Soybeans (Foll- owing Oats)	(1,425)	bu.	16	22,620	2.50	56,550	22.49	32,050	24,500
	Perm. Pasture	6,395	lbs.beef	221	4,412,900	0.184	259,973	21.16	135,345	124,628
	Idle	619								
	Other 2/	3,292								
	Woodland	0								
	TOTAL 1/	32,911					1,608,934		970,725	5/638,228

1/ Total does not include 22,244 acres to remain in woodland and 44,356 acres dedicated woodland.

2/ Farmsteads, farm roads, waste and non-agricultural.

3/ Calculated from columns 2 and 5; rounded to nearest unit.

4/ Calculated from columns 2 and 9; rounded to nearest cent.

5/ Adjusted net return to eliminate the effect of negative returns.

6/ All negative net returns were considered as zero.

7/ Parenthetical amounts are duplicated acreages.

8/ DRAINED: Cotton 71%; Corn 73%; Soybeans 80%; Oats (Gr.) 81%; Oats (Sup.Past.) 81%; Soybeans (Foll-  
owing Oats) 83%; Perm. Pasture 78%.

IRRIGATED: Cotton 19%; Corn 6%.



BASIN: Boeuf-Tensas Rivers  
           and Bayou Macon  
 PROJECT: Boeuf River &  
           Bayou Lafourche  
 REACH: BR-3  
 STATE: Louisiana & Arkansas

SUMMARY - TABLE II C  
 (Zone of No Project Benefit)  
 COMPUTATION OF AGRICULTURAL PRODUCTION: EXISTING CONDITIONS

(1) Soil Unit	(2) Land use and crop distribution	(3) Acres	(4) Unit	(5) Production Per Acre	(6) Total
All	Open Land	6			
	Idle.	6			
	Other	0			
	Woodland	1,021			
	TOTAL	1,027			



BASIN: Boeuf - Tensas Rivers  
and Bayou Macon  
 PROJECT: Boeuf River &  
Bayou Lafourche  
 REACH: BR-3  
 STATE: Louisiana & Arkansas

SUMMARY-TABLE III & IV C  
 (Zone of No Project Benefit)  
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION COSTS,  
 AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT (Based on projected prices)

(1) Boil Unit	(2) Land use and crop distribution	(3) Acres	(4) Production		(5) Value of production		(6) Cost of production		(11) Net Return Dollars
			Unit	Per acre	Total	Per unit Dollars	Total Dollars	Per acre Dollars	Total Dollars
All	Open Land	6							
	Idle	6							
	Other	0							
	Woodland	0							
	TOTAL	12							

1 / Total does not include 1,021 acres to remain as woodland, as no conversion and/or benefits are expected.

BASIN: Boeuf - Tensas Rivers  
and Bayou Macon  
PROJECT: Boeuf River &  
Bayou Lafourche  
REACH: BR-3  
STATE: Louisiana & Arkansas

TABLE V  
PROJECT AREA SUMMARY BY SOIL MAPPING UNITS

(1) Soil Unit	(2) Acres	(3) Future without project (Production in dollars)		(5) Net 1/	(6) Future with project (Production in dollars)		(9) Difference in net production
		Gross	Cost		Gross	Cost	
1	7,467	149,670	95,870	Zone B and C (Subject to Flooding)	405,709	241,420	110,375
1a	14,552	131,370	72,330		514,536	310,294	145,202
1u	1,495	36,276	20,312		74,437	41,688	16,785
2	1,376	38,231	27,730		89,890	54,118	25,271
2u	2,372	89,273	57,488		147,029	84,514	30,330
5	1,655	91,676	61,627		155,809	100,372	25,388
5u	497	10,435	6,585		36,136	23,842	8,444
9S	369	10,224	6,193		20,882	12,208	4,639
10	562	8,597	4,337		19,967	11,849	3,877
10u	2,572	72,657	48,605		144,539	90,020	29,655
TOTAL 2/	32,917	638,409	401,077		238,262	1,608,934	399,966

1/ Adjusted to eliminate negative net returns of \$930.00 in Table III and \$19.00 in Table IV.  
2/ Does not include 44,356 acres dedicated to woodland and 22,244 acres to remain in woodland in Zone B and 1,021 acres to remain as woodland in Zone C. Total acres in Zones B and C, Arkansas and Louisiana 100,538.

TABLE VI  
LAND CONVERSION COSTS WITH PROJECT

Basin: Boeuf - Tensas Rivers  
& Bayou Macon  
Project: Boeuf River and  
Bayou Lafourche  
Reach: BR-3  
State: Louisiana & Arkansas

Type of Conversion	Total Area Acres	Cost of Clearing Dollars	Cost of Smoothering Dollars	Cost of Pasture Es- tablishment Dollars	Total Cost Dollars
Woods to Other Land	2,007	120,420	-	-	120,420
Woods to General Crops	14,489	869,340	28,978	-	898,318
Woods to Pasture	3,578	214,680	-	89,450	304,130
Pasture to General Crops	535	-	1,070	-	1,070
General Crops to Pasture	-	-	-	-	-
Pasture to Improved Pasture	2,817	-	-	-	16,902
TOTAL FOR REACH BR-3					1,340,840
Annual Amortized Value (.05/478)					73,451
Annual Maintenance of Converted Pasture	3,578				30,699
Annual Maintenance of Improved Pasture	2,817				5,493



TABLE VII  
ANALYSIS OF FARM DRAINAGE SYSTEM COSTS

Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
Project: Boeuf River &  
Bayou Lafourche  
Reach: BR-3  
State: Louisiana & Arkansas

Soil Mapping Unit and Land Use	Area <u>Acres</u>	Construction Cost		Engineer- ing Cost <u>Dollars</u>	Contin- gency Cost <u>Dollars</u>	Total Cost Installation <u>Dollars</u>	Annual Equi- Annual		Total Annual Cost <u>Dollars</u>
		Per Acre <u>Dollars</u>	Total <u>Dollars</u>				valent Inst. Cost $\frac{1}{}$ <u>Dollars</u>	Mainten- ance Cost <u>Dollars</u>	
1,1a, - Cropland & 1U Pasture	11,419 3,504	15.18 8.34	173,340 29,223	34,668 5,845	17,334 2,922	225,342 37,990	29,182 4,920	26,001 877	55,183 5,797
2,2U - Cropland Pasture	2,260 370	13.08 8.34	29,561 3,086	5,912 617	2,956 309	38,429 4,012	4,977 520	4,434 93	9,411 613
5,5U - Cropland Pasture	1,106 157	11.56 7.29	12,785 1,145	2,557 229	1,279 115	16,621 1,489	2,152 193	1,918 34	4,070 227
9S - Cropland Pasture	203 49	11.43 8.73	2,320 428	464 86	232 43	3,016 557	391 72	348 13	739 85
10 - Cropland Pasture	160 206	15.03 7.92	2,405 1,632	481 326	241 163	3,127 2,121	405 275	361 49	766 324
10U - Cropland Pasture	1,508 354	13.03 8.53	19,649 3,020	3,930 604	1,965 302	25,544 3,926	3,308 508	2,947 91	6,255 599
TOTAL	21,296		278,594.	55,719	27,861	362,174	46,903	37,166	84,069

$\frac{1}{}$  Amortized at 5% for 10 year period (.12950).

Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
Project: Boeuf River &  
Bayou Lafourche  
Reach: BR-3  
State: Louisiana&Arkansas

TABLE IX  
SUMMARY OF ANNUAL NET PRODUCTION RETURNS  
AND ASSOCIATED COSTS

(1) Item	(2) Total	(3) Discounted Amount
	<u>Dollars</u>	<u>Dollars</u>
1. Net Return with Projects	638,228	
2. Net Return without Projects	238,262	
3. Gross Benefit to Projects	399,966	317,073
4. Farm Drainage Cost		
(a) Installation Cost	46,903	
(b) Maintenance Cost	37,166	
(c) Total Cost	84,069	66,646
5. Group Drainage Cost		
(a) Installation Cost	0	
(b) Maintenance Cost	0	
(c) Total Cost	0	0
6. Conversion Cost		
(a) Installation Cost	73,451	
(b) Maintenance Cost	36,192	
(c) Total Cost	109,643	86,919
7. Gross Benefit to Authorized & proposed projects		317,073
8. Less Associated Costs		153,565
9. Net return to Authorized & Proposed Projects		163,508
10. Net return: times 18% attributable to Proposed Project		29,431

TABLE I  
PRESENT LAND USE

Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
Project: Boeuf River &  
Bayou Lafourche  
Reach: BR-4A  
State: Louisiana

Zone	Soil map- ping unit	Open	Wooded	Water	Urban	Total
		Acres	Acres	Acres	Acres	Acres
Zone A	1	6,167	12,731	-	-	18,898
	1a	754	9,723	-	-	10,477
	1U <u>1/</u>	-	346	-	-	346
	2	3,186	1,003	-	-	4,189
	5	39,277	1,848	-	-	41,125
	5S <u>2/</u>	64	-	-	-	64
	5U	1,100	2,432	-	-	3,532
	5SU <u>3/</u>	87	-	-	-	87
	9S	72	-	-	-	72
	10	806	546	-	-	1,352
	10S <u>4/</u>	574	150	-	-	724
	10U	-	75	-	-	75
	11	5,620	50	-	-	5,670
	11S	336	-	-	-	336
Subtotal - all soils		58,043	28,904	-	-	86,947
Water				780	-	780
Urban					-	-
Total - Zone A		58,043	28,904	780	-	87,727
Zone B	1	280	8,108	-	-	8,388
	1a	101	13,873	-	-	13,974
	2	280	-	-	-	280
	5	2,298	1,035	-	-	3,333
	8	14	376	-	-	390
	10	353	940	-	-	1,293
	10S <u>4/</u>	267	-	-	-	267
	10U	343	582	-	-	925
	11	408	-	-	-	408
Subtotal - all soils		4,344	24,914	-	-	29,258
Water				4,331	-	4,331
Urban					-	-
Total - Zone B		4,344	24,914	4,331	-	33,589
Zone C	1	90	3,271	-	-	3,361
	1a	18	564	-	-	582
	2	25	78	-	-	103
	5	108	101	-	-	209
	5S <u>2/</u>	38	32	-	-	70
	10	19	-	-	-	19
	10S <u>4/</u>	13	-	-	-	13
	11	64	-	-	-	64
Subtotal - all soils		375	4,046	-	-	4,421
Water				-	-	-
Urban					-	-
Total - Zone C		375	4,046	-	-	4,421
REACH TOTAL		62,762	57,864	5,111	-	125,737

1/ Soil Unit 1 & 1U combined as 1.  
2/ Soil Unit 5S & 5U combined as 5U.  
3/ Soil unit 5SU & 5U combined as 5U.  
4/ Soil unit 10S & 10U combined as 10U.



Basin: Boeuf-Tensas Rivers  
& Bayou Macon

Project: Boeuf River &  
Bayou Lafourche

Reach: BR-4A

State: Louisiana

SUMMARY - TABLE II A  
 (Zone for Drainage Calculations Only)  
 COMPUTATION OF AGRICULTURAL PRODUCTION

(1) Land use and crop Distribution	(2) Acres <u>3/</u>	(3) Production (4)		(5) Total
		Unit	Per Acre <u>4/</u>	
Open Land	36,749			
Crops:	33,074			
Cotton	7,371	lbs.	316	2,326,720
Corn	4,119	bu.	29	120,270
Soybeans	559	bu.	20	10,980
Oats (Grain)	2,150	bu.	29	62,008
Oats (Sup. Past.)	(785)	lbs. beef	177	139,000
Soybeans (Fol- lowing Oats)	(345)	bu.	14	4,750
Perm. Pasture	16,793	lbs. beef	200	3,355,690
Idle	2,082			
Other <u>2/</u>	3,675			
Woodland	28,631			
Total <u>1/</u>	65,380			

1/ Does not include 273 acres dedicated woodland and 21,294 acres already drained.

2/ Farmsteads, farm roads, waste and non-agricultural.

3/ Parenthetical amounts are duplicated acreages.

4/ Calculated from columns 2 and 5; rounded to nearest unit.

# SUMMARY - TABLE III A

(Zone for Drainage Calculations Only)

COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT (Based on projected prices)

Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
Project: Boeuf River &  
Bayou Lafourche  
Reach: BR-1/A  
State: Louisiana

(1) Land use and crop Distribution	(2) Acres <u>4/</u>	(3) Production		(5) Total	(6) Value (7)		(8) Cost (9)		(10) Net Return
		Unit	Per acre		Per unit	Total	Per acre	Total	
Open Land	6,664		<u>5/</u>						
Crops:	5,997	lbs/c	250	22,500	Lint+Seed 304.5	6,850	77.07	6,936	-86
Cotton	905	bu.	24	21,570	1.50	32,355	24.86	22,501	(9,924) 2/
Corn	155	bu.	16	2,510	2.50	6,350	23.05	3,572	2,778 2/
Soybeans	855	bu.	20	17,340	.95	16,473	17.11	14,628	(2,069) 2/
Oats (grain)	(62)	lbs. beef	165	10,200	0.184	1,877	15.53	963	914
Oats (Sup. Past.)	(25)	bu.	13	325	2.50	812	20.00	500	312
Soybeans (Fol- lowing Oats)	3,622	lbs. beef	147	533,990	0.184	98,254	13.70	49,630	48,624
Pern. Pasture	379								
Idle	667								
Other	7,938				6.65	52,788	3.92	31,117	21,671
Woodland									
TOTAL	<u>14,602</u>					215,759		129,847	86,292 <u>2/</u>

- 1/ Total does not include 21,294 acres already drained; 30,585 acres expected to be drained, future without project; 5,974 acres open land not expected to participate in drainage program; 14,219 acres to remain in woodland and 273 acres dedicated woodland.
- 2/ Adjusted to eliminate negative net returns totaling \$380.
- 3/ Farmstead, farm roads, waste and non-agricultural.
- 4/ Parenthetical amounts are duplicated acreages.
- 5/ Calculated from columns 2 and 5; rounded to nearest unit.
- 6/ Calculated from columns 2 and 9; rounded to nearest cent.



SUMMARY - TABLE IV A  
(Zone for Drainage Calculations Only)  
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION  
COSTS, AND NET RETURNS; FUTURE CONDITIONS WITH PROJECT (Based on pro-  
jected prices)

Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
Project: Boeuf River &  
Bayou Lafourche  
Reach: BR-LA  
State: Louisiana

(1) Land Use and Crop Distribution	(2) Acres	(3) Production		(5) Total	(6) Value of production		(8) Cost of production		(10) Net Return
		Unit	Per Acre		Per Unit	Total	Per Acre	Total	
Open Land	14,602		4/						
Crops: 6/ 7/	13,141								
Cotton	110	lbs.	480	52,800	Lint+Seed 304.45	16,075	127.07	13,978	2,097
Corn	2,510	bu.	39	96,900	1.50	14,535	35.01	87,872	57,478
Soybeans	2,505	bu.	24	59,375	2.50	14,843	28.62	71,681	76,756
Oats (Grain)	2,725	bu.	40	109,700	.95	104,215	27.11	73,887	30,328
Oats (Sup. Past.)	(1,530)	lbs. beef	194	296,500	0.184	54,556	18.64	28,518	26,038
Soybeans (Fol- lowing Oats)	(650)	bu.	19	12,125	2.50	30,313	25.09	16,307	14,006
Pern. Pasture	5,115	lbs. beef	252	1,290,350	0.184	237,424	23.80	121,761	115,663
Idle	176								
Other	1,461								
Woodland	0								
Total 1/	14,602					736,370		444,004	322,366

- 1/ Total does not include 21,294 acres already drained; 30,585 acres expected to be drained; future without project; 5,974 acres open land not expected to participate in drainage program; 14,219 acres to remain in woodland and 273 acres dedicated woodland.
- 2/ Farmsteads, farm roads, waste and non-agricultural.
- 3/ Parenthetical amounts are duplicated acreages.
- 4/ Calculated from columns 2 and 5; rounded to nearest unit.
- 5/ Calculated from columns 2 and 9; rounded to nearest cent.
- 6/ DRAINED: Cotton 90%; Corn 92%; Soybeans, Oats (gr.); Oats (Sup. Past.); Soybeans (Fol. Oats); Pern. Pasture all 100%.
- 7/ IRRIGATED (Drained): Cotton 10%; Corn 8%.



Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
 Project: Boeuf River &  
Bayou Lafourche  
 Reach: BR-4A  
 State: Louisiana

SUMMARY - TABLE II B  
 (Zone for Drainage and Flood Control Calculations)  
 COMPUTATION OF AGRICULTURAL PRODUCTION

(1) Land Use and Crop Distribution	(2) Acres <u>3/</u>	(4) Production			(5) Total
		(3) Unit	Per Acre <u>4/</u>		
Open Land	4,344				
Crops:	3,910				
Cotton	954	lbs.	324		309,144
Corn	504	bu.	31		15,839
Soybeans	65	bu.	21		1,370
Oats:	295	bu.	35		10,205
Perm. Pasture	1,829	lbs. beef	222		405,849
Idle	263				
Other <u>2/</u>	434				
Woodland	23,405				
TOTAL <u>1/</u>	27,749				

- 1/ Total does not include 1,509 acres dedicated woodland.  
2/ Farmsteads, farm roads, waste and non-agricultural.  
3/ Parenthetical amounts are duplicated acreages.  
4/ Calculated from columns 2 and 5; rounded to nearest unit.

SUMMARY - TABLE IIIB  
(Zone for Drainage and Flood Control Calculations)  
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION  
COSTS AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT (Based on projected  
prices)

Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
Project: Boeuf River &  
Bayou Lafourche  
Reach: BR-4A  
State: Louisiana

(1) Land Use and Crop Distribution	(2) Acres \$/	(3)		(4) Production		(5)		(6) Value of production		(7)		(8) Cost of production		(9)		(10) Net Return
		Unit		Per Acre	Total	Per Unit Dollars	Total Dollars	Per Acre Dollars	Total Dollars	Per Acre Dollars	Total Dollars	Return Dollars				
Open Land	5,440			3/												
Crops: 6/ 7/	4,896							Lint+Seed 304.45				4/				
Cotton	718	1bs.		430	308,460		93,911		118.23		84,892				9,019	
Corn	731	bu.		35	25,882	1.50	38,823		33.45		24,453				14,370	
Soybeans	555	bu.		19	10,590	2.50	26,475		25.03		13,893				12,582	
Oats (grain)	570	bu.		31	17,660	.95	16,778		22.45		12,797				3,981	
Oats (Sup.Past.)	(165)	lbs.beef		164	27,100	0.184	4,986		15.50		2,558				(4,021)	6/
Soybeans (Fol- lowing Oats)	(20)	bu.		13	260	2.50	650		20.00		400				250	
Perm. Pasture	2,099	lbs.beef		218	458,250	0.184	84,318		20.71		43,472				40,846	
Idle	223															
Other 2/	544															
Woodland	7,992					6.65	53,146		3.92		31,329				21,817	
TOTAL 1/	13,432						319,087				213,794				105,333	6/

1/ Total does not include 14,317 acres to remain in woodland, and 1,509 acres dedicated woodland. (Total  
acreage in Zone BR-4A-29, 258 plus 4,331 acres reservoir) 6/ DRAINED: Cotton 15%; Corn 34%; Soybeans 41%;  
2/ Farmsteads, farm roads, waste and non-agricultural. Oats (gr.) 44%; Oats (Sup.Past.) 48%;  
3/ Calculated from columns 2 and 5; rounded to nearest unit. Soybeans (Fol. Oats) 59%; Permanent Pasture  
4/ Calculated from columns 2 and 9; rounded to nearest cent. 37%  
5/ Parenthetical amounts are duplicated acreages. 7/ IRRIGATED (Drained): COTTON 20%; Corn 10%.  
6/ Adjusted net returns to eliminate the effect of negative returns.  
All negative net returns were considered as zero.



# SUMMARY - TABLE IV B

(Zone for Drainage and Flood Control Calculations)

COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT (Based on projected prices)

Basin: Boeuf-Tensas River  
& Bayou Macon  
 Project: Boeuf River &  
Bayou Lafourche  
 Reach: BR-4A  
 State: Louisiana

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Land Use and Crop Distribution	Acres	Unit	Production Per Acre	Total	of production Per Unit Dollars	Total Dollars	of production Per Acre Dollars	Total Dollars	Net Return Dollars
Open Land	13,432		3/						
Crops: 6/ 7/	12,089								
Cotton	475	lbs.	621	295,050	Lint+Seed .30445	89,828	160.63	76,301	13,527
Corn	1,957	bu.	38	74,342	1.50	111,513	35.39	69,258	42,255
Soybeans	3,190	bu.	22	71,400	2.50	178,500	27.50	87,735	90,765
Oats (Grain)	1,105	bu.	37	153,490	.95	145,816	25.67	105,357	40,459
Oats (Sup. Past.)	(2,970)	lbs. beef	195	579,900	0.184	106,702	18.52	55,000	51,702
Soybeans (Fol- lowing Oats	(1,275)	bu.	17	22,075	2.50	55,188	23.59	30,079	25,109
Perm. Pasture	2,272	lbs. beef	225	510,150	0.184	93,868	21.46	48,760	45,108
Idle	90								
Other 2/	1,343								
Woodland	0								
TOTAL 1/	13,432					781,415		472,490	308,925
1/ Total does not include 14,317 acres to remain in woodland and 1,509 acres dedicated land. (Total acreage in Zone B-BR-4A= 29,258 acres plus 14,331 acres in Reservoir).									
2/ Farmsteads, farm roads, waste and non-agricultural.									
3/ Calculated from columns 2 and 5; rounded to nearest unit.									
4/ Calculated from columns 2 and 9; rounded to nearest cent.									
5/ Parenthetical amounts are duplicated acreages.									
6/ DRAINED: Cotton 41%; Corn 69%; Soybeans 84%; Oats (gr.) 84%;									
Oats (Sup. Past.) 84%; Soybeans (Fol. Oats) 84%; Permanent									
Pasture 79%.									
7/ IRRIGATED (Drained) Cotton 55%; Corn 15%.									



Basin: Boeuf-Tensas Rivers ..  
& Bayou Macon  
Project: Boeuf River &  
Bayou Lafourche  
Reach: BR-1A  
State: Louisiana

SUMMARY - TABLE II C  
(Zone of No Project Benefit)  
COMPUTATION OF AGRICULTURAL PRODUCTION: EXISTING CONDITIONS

(1) Land Use and Crop Distribution	(2) Acres <u>2/</u>	(4) Production		(5) Total
		(3) Unit	Per Acre <u>3/</u>	
Open Land	375			
Crops:	336			
Cotton	62	lbs.	428	26,540
Corn	52	bu.	37	1,932
Soybeans	40	bu.	17	670
Oats (Grain)	60	bu.	33	2,000
Oats (Sup. Past.)	(32)	lbs. beef	200	6,400
Perm. Pasture	122	lbs. beef	163	19,840
Idle	-			
Other <u>1/</u>	39			
Woodland	4,046			
TOTAL	4,421			

- 1/ Farmsteads, farm roads, waste and non-agricultural.  
2/ Parenthetical amounts are duplicated acreages.  
3/ Calculated from columns 2 and 5; rounded to nearest unit.

SUMMARY - TABLE III & IV C  
(Zone of No Project Benefit)  
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRO-  
DUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT  
(Based on projected prices)

Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
Project: Boeuf River &  
Bayou Lafourche  
Reach: BR-1A  
State: Louisiana

(1) Land Use and Crop Distribution	(2) Acres 3/	(3) Production		(4) Per Acre		(5) Total		(6) Value of production		(7) Total		(8) Cost of production		(9) Total		(10) Net Return
		Unit	4/	Per Acre	Total	Per Unit	Dollars	Dollars	Per Acre	Total	Dollars	Dollars	Total	Dollars	Dollars	Dollars
Open Land	375															
Crops	336															
Cotton	20	lbs.		410	8,200	Lint+Seed 30445	2,496	110.45	2,209	287						
Corn	28	bu.		40	1,106	1.50	1,659	33.79	946	713						
Soybeans	35	bu.		21	750	2.50	1,875	26.86	940	935						
Oats (Grain)	70	bu.		36	2,500	.95	2,375	24.81	1,737	638						
Oats (Sup. Past.)	(35)	lbs. beef		204	7,150	0.184	1,316	19.77	692	624						
Perm. Pasture	183	lbs. beef		182	33,300	0.184	6,127	17.24	3,155	2,972						
Idle	-															
Other	39															
Woodland	-															
TOTAL	375						15,848		9,679	6,169						

- 1/ Total does not include 4,046 acres woodland, as no conversion and/or benefits are expected.
- 2/ Farmsteads, farm roads, waste and non-agricultural.
- 3/ Parenthetical amounts are duplicated acreages.
- 4/ Calculated from columns 2 and 5; rounded to nearest unit.
- 5/ Calculated from columns 2 and 9; rounded to nearest cent.

**TABLE V**  
**SUMMARY BY SOIL MAPPING UNITS**

Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
 Project: Boeuf River &  
Bayou Lafourche  
 Reach: BR-1A  
 State: Louisiana

Page 1 of 2

Soil Unit	Acres	Future without project (Value of production in dollars)			Future with project <sup>4/</sup> (Value of production in dollars)			Difference in net value
		Gross	Cost	Net 1/	Gross	Cost	Net 1/	
1	10,041	145,682	85,830	Zone A	(Not Subject to Flooding)	268,301	222,329	162,477
1a	2,196	19,739	11,558	59,852	490,630	57,644	40,138	31,733
2	1,876	44,217	28,666	8,405	97,782	75,488	51,064	35,427
10	489	6,121	3,793	15,637	126,552	12,571	8,835	6,437
2/	14,602	215,759	129,847	2,398	21,406			
Subtotal 2/				86,292	736,370	414,004	322,366	236,074
1	4,498	53,764	32,166	Zones B & C (Subject to Flooding)				
1a	3,812	31,264	18,237					
2	305	12,429	7,354					
5	2,685	157,982	110,638					
5U	38	1,438	915					
8	127	1,038	583	523	1,438	915	523	0
10	1,004	18,160	10,788	455	4,615	2,432	2,183	1,728
10S	13	304	154	7,372	45,117	28,345	16,772	9,400
10U	853	25,204	16,104	150	304	154	150	0
11	472	33,352	26,534	9,100	46,069	28,118	17,951	8,851
Subtotal 3/	13,807	334,935	223,473	6,818	47,333	35,182	12,151	5,333
TOTAL	28,409	550,694	353,320	111,502	797,263	482,169	315,094	203,592
				197,794	1,533,633	896,173	637,460	439,666



TABLE V  
SUMMARY BY SOIL MAPPING UNITS

BASIN: Boeuf, Tensas, Macon  
PROJECT: Boeuf River and  
Bayou Lafourche  
REACH: BR-4A  
STATE: Louisiana

- 1/ Adjusted for negative net returns of \$380 in table III A and \$40 in table III B.
- 2/ Does not include 21,294 acres already drained; 30,585 acres expected to be drained, without project; 4,163 acres not expected to participate in drainage program; 273 acres dedicated woodland; 14,219 acres expected to remain in woodland and 1,811 acres converted woodland not expected to be drained. Total acres Zone A 86,947 plus 780 acres in Reservoir = 87,727.
- 3/ Does not include 1,509 acres of dedicated woodland and 14,317 acres expected to remain in woodland in Zone B. Total acres in Zone B 29,258 plus 4,331 acres in Reservoir = 33,589. Does not include 4,046 acres woodland expected to remain as woodland in Zone C. Total Zone C 4,421 acres. Total Zone B & C 38,010 acres.

TABLE VI  
LAND CONVERSION COSTS WITH PROJECT

Type of Conversion	Total	Cost of Clearing	Cost of Smoothing	Cost of Pasture Establishment	Total
	Area				Cost
Woods to Other Land	<u>Acres</u> 1,593	<u>Dollars</u> 95,580	<u>Dollars</u> 0	<u>Dollars</u> 0	<u>Dollars</u> 95,580
Woods to General Crops	11,573	694,380	23,146	0	717,526
Woods to Pasture	2,764	165,840	0	76,010	241,850
Pasture to General Crops	1,112	0	2,224	0	2,224
General Crops to Pasture	14	0	0	385	385
Pasture to Improved Pasture	13,489	0	0	0	<u>107,912</u>
TOTAL FOR REACH BR-4A					1,165,477
Annual Amortized Value (.05478)					63,845
Annual Maintenance of Converted Pasture 2,778					<u>26,530</u>
Annual Maintenance of Improved Pasture 13,489					<u>36,825</u>
					63,355

BASIN: Boeuf, Tensas, Macon  
PROJECT: Boeuf River and  
Bayou Lafourche  
REACH: BR-4A  
STATE: Louisiana

TABLE VII  
ANALYSIS OF FARM DRAINAGE SYSTEM COSTS

Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
Project: Boeuf River &  
Bayou Lafourche  
Reach: BR-LA  
State: Louisiana

Zone A & B Combined										
Soil Unit and Land Use	Area	Per Acre		Engineering Cost	Contin- gency Cost	Total Cost Installation	Annual Equivalent Cost 1/	Annual Maintenance Cost	Total Annual Cost	
		Construction	Total							
	Acres	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	
1 & 1a - Cropland Pasture	10,869 5,613	15.18 8.34	164,991 46,812	32,998 9,362	16,499 4,681	214,488 60,855	27,776 7,881	24,749 1,404	52,525 9,285	
2 - Cropland Pasture	1,238 563	13.08 8.34	16,193 4,695	3,239 939	1,619 470	21,051 6,104	2,726 790	2,429 141	5,155 931	
5 & 5U -Cropland Pasture	2,703 635	11.56 7.29	31,247 4,629	6,249 926	3,125 463	40,621 6,018	5,260 779	4,687 139	9,947 918	
8 - Pasture	92	7.92	729	146	73	948	123	22	145	
10 - Cropland Pasture	680 259	15.03 7.92	10,220 2,051	2,044 410	1,022 205	13,286 2,666	1,721 345	1,533 62	3,254 407	
10U - Cropland Pasture	317 38	13.03 8.53	4,131 324	826 65	413 32	5,370 421	695 55	620 10	1,315 65	
TOTAL	23,007		286,022	57,204	28,602	371,828	48,151	35,796	83,947	

1/ Amortized at 5% for 10 year period (0.12950)



BASIN: Bocuf-Tensas Rivers and  
Bayou Macon

PROJECT: Bocuf River and  
Bayou Lafourche

REACH: BR-4A

STATE: Louisiana

TABLE IX  
SUMMARY OF ANNUAL NET PRODUCTION RETURNS AND ASSOCIATED COSTS

(1) Item	(2) Total  Dollars	(3) Discounted amount  Dollars
1. Net Return with project	631,291	
2. Net Return without project	191,625	
3. Gross Benefit to project	439,666	348,545
4. Farm Drainage Cost		
(a) Installation Cost	48,151	
(b) Maintenance Cost	35,796	
(c) Total Cost	83,947	66,549
5. Group Drainage Cost		
(a) Installation Cost	0	
(b) Maintenance Cost	0	
(c) Total Cost	0	0
6. Conversion Cost		
(a) Installation Cost	63,845	
(b) Maintenance Cost	63,355	
(c) Total Cost	127,200	100,838

Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
 Project: Boeuf River &  
Bayou Lafourche  
 Reach: BR-4B  
 State: Louisiana

TABLE I  
 PRESENT LAND USE

Zone	Soil map- ping unit	Open (Acres)	Wooded (Acres)	Water (Acres)	Urban (Acres)	Total (Acres)
Zone A	1	4,792	7,498	-	-	12,290
	1a	1,947	8,183	-	-	10,130
	1U	38	71	-	-	109
	2	2,116	1,116	-	-	3,232
	5	27,906	910	-	-	28,816
	5S	980	11	-	-	991
	5U	439	6	-	-	445
	9	312	-	-	-	312
	9S	167	51	-	-	218
	9SU	489	145	-	-	634
	10	2,916	1,460	-	-	4,376
	10S	154	-	-	-	154
	10W	207	278	-	-	485
	10SU	319	198	-	-	517
	11	10,155	46	-	-	10,201
	11S	190	40	-	-	230
Subtotal - all soils		53,127	20,013	-	-	73,140
Water				-		-
Urban					3,798	3,798
Total - Zone A		53,127	20,013	-	3,798	76,938
Zone B	1	2,136	8,632	-	-	10,768
	1a	339	26,487	-	-	26,826
	1f 1/	19	181	-	-	200
	1U	63	483	-	-	546
	2	1,676	1,291	-	-	2,967
	5 2/	5,817	531	-	-	6,348
	5S	136	-	-	-	136
	5U	1,672	298	-	-	1,970
	9S	87	-	-	-	87
	9SU 3/	12	65	-	-	77
	10	877	472	-	-	1,349
	10S 4/	31	-	-	-	31
	10U	82	131	-	-	213
	10SU 4/	31	65	-	-	96
	11 27/	45	6	-	-	51
Subtotal - all soils		13,023	38,642	-	-	51,665
Water		-	-	-	-	-
Urban		-	-	-	-	-
Total - Zone B		13,023	38,642	-	-	51,665

Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
 Project: Boeuf River &  
Bayou Lafourche  
 Reach: BR-4B  
 State: Louisiana

TABLE I  
 PRESENT LAND USE

Zone	Soil map- ping unit	Open (Acres)	Wooded (Acres)	Water (Acres)	Urban (Acres)	Total (Acres)
Zone C	1	308	5,268	-	-	5,576
	1a	479	55,870	-	-	56,349
	1U	249	1,114	-	-	1,363
	2	73	195	-	-	268
	5	397	1,557	-	-	1,954
	5S 5/	26	-	-	-	26
	5U	169	211	-	-	380
	9	58	25	-	-	83
	10	392	176	-	-	568
	10U 6/	52	-	-	-	52
	Subtotal - all soils	2,203	64,416	-	-	66,619
Water		-	-	-	-	-
Urban		-	-	-	-	-
Total Zone C		2,203	64,416	-	-	66,619
REACH TOTAL - all soils		68,353	123,071	-	-	191,424
Urban		-	-	-	3,798	3,798
Total		68,353	123,071	-	3,798	195,222

- 1/ Soil Units 1a and 1f combined as 1a.  
 2/ Soil Units 5 and 11 combined as 5.  
 3/ Soil Units 9S and 9SU combined as 9S.  
 4/ Soil Units 10S, 10U and 10SU combined as 10U.  
 5/ Soil Units 5S and 5U combined as 5U.  
 6/ Soil Units 10 and 10U combined as 10.



Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
Project: Boeuf Rivers &  
Bayou Lafourche  
Reach: BR-4B  
State: Louisiana

SUMMARY - TABLE II A  
(Zone for Drainage Calculations Only)  
COMPUTATION OF AGRICULTURAL PRODUCTION

(1) Land Use and crop Distribution	(2) Acres <u>3/</u>	(3) Unit	(4) Production Per acre <u>4/</u>	(5) Total
Open Land	39,439			
Crops:	35,493			
Cotton	11,962	lbs.	313	3,744,900
Corn	4,523	bu.	30	135,593
Soybeans	1,905	bu.	19	35,870
Oats (Grain)	3,465	bu.	32	111,275
Oats (Sup. Past.)	(1,733)	lbs. beef	186	322,125
Soybeans (Fol- lowing Oats)	(445)	bu.	13	5,635
Perm. Pasture	12,609	lbs. beef	201	2,539,170
Idle	1,029			
Other <u>2/</u>	3,946			
Woodland	19,562			
Total <u>1/</u>	59,001			

- 1/ Total does not include 451 acres dedicated land and 13,688 acres already drained.  
2/ Farmsteads, farm roads, waste and non-agricultural.  
3/ Parenthetical amounts are duplicated acreages.  
4/ Calculated from columns 2 and 5; rounded to nearest unit.

SUMMARY - TABLE III A  
(Zone for Drainage Calculations Only)  
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRO-  
DUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT  
(Based on Projected Prices)

Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
Project: Boeuf River &  
Bayou Lafourche  
Reach: BR-LB  
State: Louisiana

(1) Unit	(2) Land Use and Crop Distribution	(3) Acres 4/	(4) Production		(6) Total		(7) Value of production		(9) Cost of production		(10) Total		(11) Net return
			Unit	Per acre	Per unit	Dollars	Total	Dollars	Per acre	Dollars	Total	Dollars	Dollars
All	Open Land	8,761		5/					6/				(288) 2/
	Crops	7,885											-32
	Cotton	130	lbs.	265		34,500	10,503	81.04		10,535			(9,380) 2/
	Corn	860	bu.	24		20,340	30,510	24.76		21,290			9,220
	Soybeans	855	bu.	15		12,665	31,663	21.63		18,491			13,172
	Oats (Grain)	1,245	bu.	23		28,020	26,619	18.24		22,705			(4,250) 2/
	Oats(Sup.Past.)	(615)	lbs.beef	151		93,000	17,112	14.00		8,675			3,914
	Soybeans (Fol- lowing Oats)	(135)	bu.	12		1,575	3,938	18.80		2,538			1,400
	Perm.Pasture	4,469	lbs.beef	140		623,450	114,714	12.85		57,425			57,289
	Idle	326											
	Other 3/ Woodland	876											
	TOTAL 1/	5,609					33,093	3.31		18,566			14,527
		14,370					268,152			160,225			108,743 2/

- 1/ Total does not include 13,688 acres already drained; 31,556 acres expected to be drained, future without project; 3,350 acres open land not expected to participate in drainage program; 9,725 acres to remain in woodland; 451 acres dedicated woodland.
- 2/ Adjusted to eliminate negative net returns totaling \$816.
- 3/ Farmstead, farm roads, waste and non-agricultural.
- 4/ Parenthetical amount are duplicated acreages.
- 5/ Calculated from columns 3 and 6; rounded to nearest unit.
- 6/ Calculated from columns 3 and 9; rounded to nearest cent.



**SUMMARY - TABLE IV A**  
(Zone for Drainage Calculations Only)

COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT (Based on projected prices)

Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
Project: Boeuf River &  
Bayou Lafourche  
Reach: BR-LB  
State: Louisiana

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Land Use and Crop	Acres	Unit	Production	Total	Per Unit	Total	Per Acre	Total	Net Return
			Per acre		Dollars	Dollars	Dollars	Dollars	Dollars
Open Land	14,370		4/		Lint+Seed		5/		
Crops: 6/ 7/	12,934			220,200	304.45	67,039	122.05	59,194	7,845
Cotton	485	lbs.	454	89,140	1.50	133,710	35.24	80,692	53,018
Corn	2,290	bu.	39	74,500	2.50	186,250	28.17	90,714	95,536
Soybeans	3,220	bu.	23	117,000	.95	111,150	26.54	79,365	31,785
Oats(Grain)	2,990	bu.	39	376,500	0.184	69,276	19.20	36,279	32,997
Oats(Sup.Past.)	(1,890)	lbs.beef	199						
Soybeans (Fol-									
lowing Oats)	(770)	bu.	18	13,800	2.50	34,500	24.43	18,811	15,689
Perm. Pasture	3,843	lbs.beef	249	958,150	0.184	176,299	23.58	90,610	85,689
Idle	106								
Other	1,436								
Woodland	0								
TOTAL	14,370					778,224		455,665	322,559

1/ Total does not include 13,688 acres already drained; 31,556 acres expected to be drained; future without project; 3,350 acres open land not expected to participate in drainage program, 9,725 acres to remain in Woodland, 451 acres dedicated woodland.

2/ Farmsteads, farm roads, waste and non-agricultural.

3/ Parenthetical amounts are duplicated acreages.

4/ Calculated from columns 2 & 5; rounded to nearest unit.

5/ Calculated from columns 2 and 9; rounded to nearest cent.

6/ DRAINED: Cotton 90%; Corn 92%; Soybeans, Oats (gr.); Oats (Sup. Past.) Soybeans (Fol. Oats) & Perm. Pasture all 100%.

7/ IRRIGATED (Drained): Cotton 10%;  
Corn 8%.



BASIN: Boeuf - Tensas Rivers  
& Bayou Macon

PROJECT: Boeuf River and  
Bayou Lafourche

REACH: BR-4B

STATE: Louisiana

SUMMARY - TABLE IIB  
 (ZONE FOR DRAINAGE AND FLOOD CONTROL CALCULATIONS)  
 COMPUTATION OF AGRICULTURAL PRODUCTION

(1)	(2)	(3)	(4)	(5)	(6)
Soil Unit	Land Use and Crop distribution	Acres 4/	Unit	Production per acre	Total
ALL	Open Land	13,023		3/	
	Crops	11,720			
	Cotton	1,455	lbs. lint	346	503,250
	Corn	1,305	bushel	32	42,260
	Soybeans	680	bushel	20	13,530
	Oats (grain)	1,279	bushel	34	43,976
	Oats (Sup. Past.)	(637)	lbs. beef	192	122,220
	Soybeans (Following Oats)	(265)	bushel	15	3,965
	Perm. Pasture	6,556	lbs. beef	216	1,414,150
	Idle	445			
	Other 2/	1,303			
	Woodland	28,389			
	TOTAL 1/	41,412			

1/ Total does not include 10,253 acres dedicated woodland.

(Total acreage-Reach BR-4B-Zone B = 51,665 acres).

2/ Farmsteads, farm roads, waste and non-agricultural.

3/ Calculated from columns 3 and 6; rounded to nearest unit.

4/ Parenthetical amounts are duplicated acreages.

SUMMARY - TABLE III B

(Zone for Drainage and Flood Control Calculations)  
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS  
AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT (Based on projected prices)

Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
Project: Boeuf River &  
Bayou Lafourche  
Reach: BR-4B  
State: Louisiana

(1) Land Use and Crop Distribution	(2) Acres 6/	(3) Unit	(4) Production Per Acre	(5) Total	(6) Value of production Per Unit	(7) Total	(8) Cost of production Per Acre	(9) Total	(10) Net Return
Open Land Crops: 7/ 8/ Cotton	13,770 12,392 1,185	lbs.	3/ 406	481,350	Lint+Seed .30445	146,548	4/ 112.78	133,643	12,905 (12,939) 5/ 29,792
Corn	1,439	bu.	37	53,024	1.50	79,536	34.57	49,744	(29,812) 5/
Soybeans	.920	bu.	19	17,655	2.50	44,137	25.16	23,152	20,985
Oats (Grain)	1,330	bu.	35	46,000	.95	43,700	24.25	32,247	11,453
Oats(Sup.Past.)	(682)	lbs.beef	195	132,720	0.184	24,420	18.66	12,728	11,692
Soybeans(Fol- lowing Oats)	(205)	bu.	16	3,330	2.50	8,325	22.92	4,699	3,626
Perm. Pasture	7,158	lbs.beef	209	1,496,060	0.184	275,275	19.75	141,377	133,898
Idle	360								
Other 2/ Woodland	1,378 10,360					61,125	3.31	34,293	26,832
TOTAL 1/	24,130					683,066		431,883	251,237 5/
1/ Total does not include 17,282 acres to remain in woodland and 10,253 acres dedicated woodland. (Total acreage Zone B Reach BR-4B - 51,665 acres).									
2/ Farmsteads, farm roads, waste and non-agricultural.									
3/ Calculated from columns 2 and 5; rounded to nearest unit.									
4/ Calculated from columns 2 and 9; rounded to nearest cent.									
5/ Adjusted net return to eliminate the effect of negative returns.									
6/ All negative net returns were considered as zero.									
7/ DRAINED: Cotton 15%; Corn 16%; Soybeans 28%; Oats(Gr.) 28%; Oats(Sup.Past.) 28%; Soybeans (Fol. Oats) 28%; Perm. Pasture 29%.									
8/ IRRIGATED: (Drained) Cotton 17%; Corn 12%.									
6/ Parenthetical amounts are duplicated acreages.									



SUMMARY - TABLE IV B  
(Zone for Drainage and Flood Control Calculations)  
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS,  
AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT (Based on projected prices)

Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
Project: Boeuf River &  
Bayou Lafourche  
Reach: BR-1/B  
State: Louisiana

(1) Land Use and Crop Distribution	(2) Acres	(3) Unit	(4) Production Per Acre	(5) Total	(6) Value of production Per Unit	(7) Total	(8) Cost of production Per Acre	(9) Total	(10) Net Return
Open Land	24,130		3/						
Crops: 6/ 7/	21,717				Lint+Seed 30¢/lb		4/		
Cotton	2,430	lbs.	580	1,410,300	30¢/lb	429,366	151.76	368,780	60,586
Corn	4,390	bu.	42	185,400	1.50	278,100	38.60	169,460	108,640
Soybeans	6,190	bu.	23	141,260	2.50	353,150	27.82	172,236	180,914
Oats (Grain)	4,090	bu.	39	159,680	.95	151,696	26.50	108,390	43,306
Oats (Sup. Past.)	(2,465)	lbs. beef	208	511,700	0.184	94,153	19.74	48,658	45,495
Soybeans (Fol- lowing Oats)	(845)	bu.	19	15,680	2.50	39,200	24.63	20,809	18,391
Perm. Pasture	4,335	lbs. beef	242	1,049,200	0.184	193,054	22.99	99,664	93,390
Idle	282								
Other	2,413								
Woodland	0								
TOTAL	24,130					1,538,719		987,997	550,722

- 1/ Total does not include 17,282 acres to remain in woodland and 10,253 acres dedicated woodland.  
Total acreage of Zone B - 51,665.
- 2/ Farmsteads, farm roads, waste and non-agricultural.
- 3/ Calculated from columns 2 and 5; rounded to nearest unit.
- 4/ Calculated from columns 2 and 9; rounded to nearest cent.
- 5/ Parenthetical amounts are duplicated acreages.
- 6/ DRAINED: Cotton 47%; Corn 66%; Soybeans 85%; Oats (gr.) 85%;  
Oats (Sup. Past.) 86%; Soybeans (Following Oats 85%;  
and Permanent Pasture 84%.
- 7/ IRRIGATION (Drained): Cotton 45%; Corn 19%.



SUMMARY - TABLE II C  
(ZONE OF NO PROJECT BENEFITS)  
COMPUTATION OF AGRICULTURAL PRODUCTION  
EXISTING CONDITIONS

BASIN: Boeuf-Tensas Rivers  
& Bayou Macon  
PROJECT: Boeuf River &  
Bayou Lafourche  
REACH: BR-4B  
STATE: Louisiana

(1) Soil Unit	(2) Land Use and Crop Distribution	(3) Acres 3/	(4) Unit	(5) Production per acre 2/	(6) Total
ALL	Open Land	2,203			
	Crops	1,983	lbs.lint		
	Cotton	145	+ Seed	266	38,550
	Corn	240	bushel	23	5,490
	Soybeans	52	bushel	17	905
	Oats (grain)	337	bushel	28	9,450
	Oats (Sup. Past.)	(151)	lbs.beef	155	23,380
	Perm. Pasture	1,116	lbs.beef	160	178,490
	Idle	93			
	Other 1/	220			
	Woodland	64,416			
	Total	66,619			

- 1/ Farmsteads, farm roads, waste and non-agricultural.  
2/ Calculated from columns 3 and 6; rounded to nearest unit.  
3/ Parenthetical amounts are duplicated acreages.

SUMMARY - TABLE III & IV C  
(Zone of No Project Benefit)  
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION  
COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT (Based on projected  
prices)

Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
Project: Boeuf River &  
Bayou Lafourche  
Reach: BR-LB  
State: Louisiana

(1) Land Use and Crop Distribution	(2) Acres 6/	(3) Unit	(4) Production Per Acre	(5) Total	(6) Value of production Per Unit	(7) Total	(8) Cost of production Per Acre	(9) Total	(10) Net Return
Open Land	2,203		3/						
Crops:	1,983								
Cotton	157	lbs.	234	36,800	Lint+Seed 30445	11,203	77.91	12,232	-1,029 (393) 5/
Corn	207	bu.	23	4,702	1.50	7,053	24.23	5,015	2,038
Soybeans	70	bu.	16	1,125	2.50	2,813	22.77	1,594	(2,138) 5/
Oats (Grain)	226	bu.	27	6,176	.95	5,867	20.57	4,649	1,219
Oats (Sup. Past.)	(103)	lbs. beef	175	18,060	0.184	3,323	16.68	1,718	1,218
Perm. Pasture	1,245	lbs. beef	164	204,620	0.184	37,650	15.50	19,293	1,605
Idle	78								18,357
Other	2/								
Woodland	220								
TOTAL	2,203					67,909		44,501	24,930 5/

- 1/ Total does not include 64,416 acres woodland, as no conversion and/or benefits are expected.
- 2/ Farmsteads, farm roads, waste and non-agricultural.
- 3/ Calculated from columns 2 and 5; rounded to nearest unit.
- 4/ Calculated from columns 2 and 9; rounded to nearest cent.
- 5/ Adjusted net return to eliminate the effect of negative returns.
- 6/ All negative net returns were considered as zero.
- 6/ Parenthetical amounts are duplicated acreages.



TABLE V  
SUMMARY BY SOIL MAPPING UNITS

BASIN: Boeuf-Tensas Rivers  
& Bayou Macon  
PROJECT: Boeuf River &  
Bayou Lafourche  
REACH: BR-LB  
STATE: Louisiana

Page 1 of 2

Soil Unit	Acres	Future without project (Value of production in dollars)			Future with project 4/ (Value of production in dollars)			Difference in net value
		Gross	Cost	Net 1/ Zone A	Gross	Cost	Net 1/ Zone A	
1	6,655	116,294	66,722	49,787	368,619	206,010	162,609	112,822
1a	2,459	27,346	15,605	12,137	105,526	58,924	46,602	34,465
1u	55	1,048	644	404	3,026	1,786	1,240	836
2	2,317	66,425	40,841	25,603	161,207	100,653	60,554	34,951
5u	345	16,645	12,725	3,920	24,757	17,195	7,562	3,642
10	2,179	34,108	19,682	14,526	95,425	59,246	36,179	21,653
10u	360	6,286	4,006	2,366	19,664	11,851	7,813	5,447
Subtotal 2/	14,370	268,152	160,225	108,743	778,221	455,665	322,559	213,816
1	6,557	105,816	61,627	44,421	315,936	184,723	131,445	87,024
1a	5,181	52,688	28,764	23,924	184,972	111,111	73,861	49,937
1u	493	9,052	4,827	4,225	18,669	10,552	8,117	3,892
2	2,930	82,373	54,140	28,248	178,581	107,614	70,977	42,729
5	6,719	374,274	245,590	128,684	681,882	473,522	208,360	79,676
5s	136	6,084	3,331	2,753	9,618	5,616	4,002	1,249
5u	2,126	76,318	50,173	26,145	136,971	88,509	48,462	22,317
9	58	2,494	1,948	546	2,494	1,948	546	0
9s	158	5,732	3,498	2,286	9,225	5,056	4,169	1,883
10	1,658	29,141	17,949	12,492	53,129	34,633	19,776	7,284
10u	317	6,948	4,537	2,443	15,151	9,214	5,937	3,494
Subtotal 3/	26,333	750,975	476,384	276,167	1,606,628	1,032,498	575,652	299,485
TOTAL	40,703	1,019,127	636,609	384,910	2,384,852	1,488,163	898,211	513,301



TABLE V  
SUMMARY BY SOIL MAPPING UNITS

Page 2 of 2

Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
 Project: Boeuf River &  
Bayou Lafourche  
 Reach: BR-4B  
 State: Louisiana

- 1/ Adjusted to eliminate negative net returns of \$816 in table III A, Adjusted to eliminate negative net returns of \$54 in table III B and \$1,522 in table III & IVC.
- 2/ Total does not include 13,688 acres already drained; 31,556 acres expected to be drained future without project, 1,987 acres not expected to participate in drainage program; 451 acres dedicated to woodland; 9,725 acres to remain in woodland and 1,363 acres converted woodland not expected to participate in drainage program and 3,798 acres urban. Total Zone A - Reach BR-4B-76,938.
- 3/ Total does not include 10,253 acres dedicated to woodland, and 17,282 acres expected to remain in woodland in Zone B. Total Zone B - 51,665 acres.
- Total does not include 64,416 acres of woodland in Zone C. Total acres Zone C - 66,619.
- Total acres Zone B & C - 118,284 acres.
- 4/ Includes Zone C which is assumed to be the same as future conditions without project.

TABLE VI  
LAND CONVERSION WITH PROJECT

BASIN: Boeuf-Tensas Rivers  
& Bayou Macon  
PROJECT: Boeuf River &  
Bayou Lafourche  
REACH: BR-4B  
STATE: Louisiana

Type of Conversion	Total Amount	Cost of Clearing	Cost of Smoothing	Cost of Pasture Establishment	Total Cost
	<u>Acres</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>
Woods to other land	1,597	95,820	-	-	95,820
Woods to general crops	12,684	761,040	25,368	-	786,408
Woods to pasture	1,688	101,280	-	48,952	150,232
Pasture to general crops	5,137	-	10,274	-	10,274
Pasture to improved pasture	6,490	-	-	-	45,430
TOTAL FCR REACH BR-4B					1,088,164
Annual amortized value (.05478)					59,610
Annual Maintenance of Converted Pasture	1,688				16,745
Annual Maintenance of Improved Pasture	6,490				16,290

TABLE VII  
ANALYSIS OF FARM DRAINAGE SYSTEM COSTS

Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
Project: Boeuf River &  
Bayou Lafourche  
Reach: BR-1/B  
State: Louisiana

Zone A & B Combined		Construction Cost		Engineer-	Contin-	Total Cost	Annual Equi-	Annual	Total
Soil Mapping Unit and Land Use	Area	Per Acre	Total	ing Cost	gency Cost	Installation	valent Inst., Cost 1/	Mainte- nance Cost	Annual Cost
1, 1a & 1U-Cropland Pasture	Acres 10,091 5,244	Dollars 15.18 8.34	Dollars 153,181 43,735	Dollars 30,636 8,747	Dollars 15,318 4,374	Dollars 199,135 56,856	Dollars 25,788 7,363	Dollars 22,977 1,312	Dollars 48,765 8,675
2 -Cropland Pasture	3,729 397	13.08 8.34	48,775 3,311	9,755 662	4,878 331	63,408 4,304	8,211 557	7,316 99	15,527 656
5U -Cropland Pasture	4,402 621	11.56 7.29	50,887 4,527	10,177 905	5,089 453	66,153 5,885	8,567 762	7,633 136	16,200 898
9S -Cropland Pasture	88 24	11.43 8.73	1,006 210	201 42	101 21	1,308 273	169 35	151 6	320 41
10 -Cropland Pasture	2,203 558	15.03 7.92	33,111 4,419	6,622 884	3,311 442	43,044 5,745	5,574 744	4,967 133	10,541 877
10U -Cropland Pasture	470 89	13.03 8.53	6,124 759	1,225 152	612 76	7,961 987	1,031 128	919 23	1,950 151
TOTAL	27,916		350,045	70,008	35,006	455,059	58,929	45,672	104,601

1/ Amortized at 5% for 10 year period (.12950).



BASIN: Boeuf - Tensas Rivers  
& Bayou Macon  
PROJECT: Boeuf River and  
Bayou Lafourche  
REACH: BR-4B  
STATE: Louisiana

TABLE IX  
SUMMARY OF ANNUAL NET PRODUCTION RETURNS AND ASSOCIATED COSTS

(1)	(2) Total	(3) Discounted Amount
	<u>DOLLARS</u>	<u>DOLLARS</u>
1. Net Return with Project	873,281	
2. Net Return without Project	359,980	
3. Gross Benefit to Project	513,301	406,919
4. Farm Drainage Cost		
(a) Installation Cost	58,929	
(b) Maintenance Cost	45,672	
(c) Total Cost	104,601	82,922
5. Group Drainage Cost		
(a) Installation Cost	0	
(b) Maintenance Cost	0	
(c) Total Cost	0	0
6. Conversion Cost		
(a) Installation Cost	59,610	
(b) Maintenance Cost	33,035	
(c) Total Cost	92,645	73,444

Basin: Boeuf-Tensas Rivers  
and Bayou Macon  
Project: Boeuf River and  
Bayou Lafourche  
Reach: BR-5  
State: Louisiana

TALLE I  
PRESENT LAND USE

Zone	Soil map- ping unit	Open	Wooded	Urban	Total
		(Acres)	(Acres)	(Acres)	(Acres)
Zone B	1	498	3,750	-	4,248
	1a	24	1,446	-	1,470
	1f 2/	-	517	-	517
	2	460	988	-	1,448
	5	2,767	1,138	-	3,905
	5U	85	450	-	535
	8f	68	438	-	506
	9S	806	-	-	806
	9U	703	191	-	894
	10	790	1,110	-	1,900
	10S	122	418	-	540
	10U	3,203	882	-	4,085
	11	159	-	-	159
Subtotal - all soils		9,685	11,328	-	21,013
Water		-	-	-	-
Urban		-	-	-	-
TOTAL - ZONE B		9,685	11,328	-	21,013
Zone C	1	79	3,375	-	3,454
	1a	-	9,586	-	9,586
	1f 2/	-	19,388	-	19,388
	2	335	2,031	-	2,366
	5	358	1,443	-	1,801
	5U	97	226	-	323
	8f	107	3,284	-	3,391
	9S	199	196	-	395
	9U	22	-	-	22
	9SU	-	89	-	89
	10	408	232	-	640
	10S	266	1,012	-	1,278
	10U	576	76	-	652
Subtotal - all soils		2,447	40,938	-	43,385
Water		-	-	-	-
Urban		-	-	-	-
TOTAL - Zone C		2,447	40,938	-	43,385
REACH TOTAL-ALL SOILS		12,132	52,266	-	64,398

1/ No Zone A Benefits

2/ Soil Units 1a and 1f combined as 1a.

Basin: Boeuf-Tensas Rivers  
and Bayou Macon  
 Project: Boeuf River and  
Bayou Lafourche  
 Reach: BR-5  
 State: Louisiana

SUMMARY - TABLE II B  
 (Zone for Drainage and Flood Control Calculations)  
 COMPUTATION OF AGRICULTURAL PRODUCTION

(1) Soil Unit	(2) Land use and crop distribution	(3) Acres 4/	(5) Production		
			(4) Unit	(5) Per acre	(6) Total
All	Open Land	9,685		<u>3/</u>	
	Crops	8,716			
	Cotton	1,425	lbs.	339	482,550
	Corn	1,184	bu.	24	28,346
	Soybeans	521	bu.	18	9,140
	Oats (Grain)	1,098	bu.	29	32,180
	Oats (Sup.Past.)	(546)	lbs.beef	177	96,800
	Soybeans (Following oats)	(200)	bu.	12	2,405
	Perm. Pasture	4,164	lbs.beef	162	673,860
	Idle	324			
	Other <u>2/</u>	969			
	Woodland	8,094			
	TOTAL <u>1/</u>	17,779			

- 1/ Does not include 3,234 acres dedicated woodland.  
2/ Farmsteads, farm roads, waste and non-agricultural.  
3/ Calculated from columns 3 and 6; rounded to nearest unit.  
4/ Parenthetical amounts are duplicated acreages.



Basin: Boeuf-Tensas Rivers

and Bayou Macon

Project: Boeuf River and

Bayou Lafourche

Reach: BR-5

State: Louisiana

SUMMARY - TABLE III B

(Zone for Drainage and Flood Control Calculations)  
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS,  
AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT (Based on projected prices)

(1) Soil Unit	(2) Land use and crop distribution	(3) Acres	(4) Unit	(5) Production Per acre	(6) Total	(7) Value of production Per unit	(8) Total	(9) Cost of production Per acre	(10) Total	(11) Net return
All	Open Land	10,746		3/				4/		
	Crops 7/ 8/	9,741	lbs.	348	480,800	.30445	146,380	98.98	136,595	5/ (9,785)
	Cotton	1,380	bu.	28	40,150	1.50	60,225	27.64	40,356	19,869
	Corn	1,460	bu.							5/ (19,874)
	Soybeans	1,585	bu.	17	27,210	2.50	68,025	23.64	37,468	30,557
	Oats (Grain)	1,950	bu.	31	60,780	.95	57,741	22.52	43,909	13,832
	Oats (Sup. Pas.)	(522)	lbs. beef	196	102,520	.184	18,863	18.80	9,813	9,050
	Soybeans (Following oats)	(150)	bu.	16	2,395	2.50	5,987	22.67	3,400	2,587
	Perm. Pasture	3,032	lbs. beef	174	526,500	.184	96,876	16.48	49,964	46,912
	Idle	334								
	Other 2/	1,005								
	Woodland	4,431				6.14	27,205	4.39	19,451	7,754
TOTAL 1/		15,177					481,302		340,956	5/ 141,046

1/ Does not include 2,602 acres to remain in woodland. 3,234 acres dedicated woodland.  
(Total acreage in Reach - Zone B = 21,013 acres.)

2/ Farmsteads, farm roads, waste and non-agricultural.

3/ Calculated from columns 3 and 6; rounded to nearest unit.

4/ Calculated from columns 3 and 10; rounded to nearest cent.

5/ Adjusted net return to eliminate the effect of negative returns. All negative net returns were considered as zero.

6/ Parenthetical amounts are duplicated acreages.

7/ DRAINED: Cotton 7%; Corn 10%; Soybeans 14%; Oats 14%; Oats (Sup. Past.) 12%; Soybeans (Following oats) 13%; Permanent Pasture 13%.

8/ IRRIGATED: Cotton 7%; Corn 3%.

Basin: Boeuf-Tensas Rivers

and Bayou Macon

Project: Boeuf River and

Bayou Lafourche

Reach: BR-5

State: Louisiana

SUMMARY - TABLE IV B

(Zone for Drainage and Flood Control Calculations)

COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT (Based on projected prices)

(1) Soil Unit	(2) Land use and crop distribution	(3) Acres 5/	(4) Unit	(5) Production Per acre	(6) Total	(7) Value of production Per unit Dollars	(8) Total Dollars	(9) Cost of production Per acre Dollars	(10) Total Dollars	(11) Net return Dollars
All	Open Land	15,177	3/	589	855,400	.30445	260,427	154.33	223,774	36,653
	Crops 6/ 7/	13,659								
	Cotton	1,450								
	Corn	2,245								
	Soybeans	3,195								
	Oats (Grain)	2,820								
	Oats (Sup.Pas.)	(2,035)								
	Soybeans (Fol- lowing oats)	(860)								
	Perm. Pasture	3,807								
	Idle	1,518								
	Other 2/ Woodland	0								
	TOTAL 1/	15,177					980,273		627,519	352,754
1/	Does not include 2,602 acres to remain in woodland and 3,234 acres dedicated woodland. Total acreage in Zone B= 21,013									
2/	Farmsteads, farm roads, waste and non-agricultural.									
3/	Calculated from columns 3 and 6; rounded to nearest unit.									
4/	Calculated from columns 3 and 10; rounded to nearest cent.									
5/	Parentetical amounts are duplicated acreages.									
6/	DRAINED: Cotton 41%; Corn 68%; Soybeans 63%; Oats (Grain) 75%; Oats (Sup.Past.) 88%; Soybeans (Following oats) 88%; Permanent Pasture 86%.									
7/	IRRIGATED: Cotton 49%; Corn 20%.									



Basin: Boeuf-Tensas Rivers  
           and Bayou Macon  
 Project: Boeuf River and  
           Bayou Lafourche  
 Reach: BR-5  
 State: Louisiana

SUMMARY - TABLE II C  
 (Zone of No Project Benefit)  
 COMPUTATION OF AGRICULTURAL PRODUCTION: EXISTING CONDITIONS

(1)	(2)	(3)	(4)	(5)	(6)
Soil Unit	Land use and crop distribution	Acres 1/	Production		
			Unit	Per acre	Total
All	Open Land	2,447		<u>3/</u>	
	Crops	2,203			
	Cotton	272	lbs.	253	68,700
	Corn	388	bu.	23	9,054
	Soybeans	64	bu.	18	1,130
	Oats (Grain)	406	bu.	27	10,790
	Oats (Sup. Past.)	(219)	lbs. beef	172	37,600
	Soybeans (Following Oats)	(50)	bu.	13	655
	Perm. Pasture	986	lbs. beef	154	151,860
	Idle	87			
	Other <u>2/</u>	244			
	Woodland	40,938			
	TOTAL	43,385			

- 1/ Parenthetical amounts are duplicated acreages.  
2/ Farmsteads, farm roads, waste and non-agricultural.  
3/ Calculated from columns 3 and 6; rounded to nearest unit.



Basin: Boeuf-Tensas Rivers  
and Bayou Macon

Project: Boeuf River and  
Bayou Lafourche

Reach: BR-5

State: Louisiana

SUMMARY - TABLE III & IV C  
(Zone of No Project Benefit)

COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS,  
AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil Unit	Land use and crop distribution	Acres 6/	Unit	Production Per acre	Total	Value of production Per unit=	Total	Cost of production Per acre	Total	Net return Dollars
All	Open Land	2,447		3/				4/		
	Crops	2,203								-169
	Cotton	220	lbs.	257	56,500	.30445	17,202	78.96	17,371	(262)
	Corn	449	bu.	21	9,278	1.50	13,917	23.06	10,352	3,565
	Soybeans	92	bu.	21	1,925	2.50	4,813	26.79	2,465	(3,745)
	Oats (Grain)	373	bu.	26	9,512	.95	9,036	19.65	7,329	2,348
	Oats (Sup. Pas.)	(185)	lbs. beef	160	29,650	0.184	5,456	15.08	2,789	1,707
	Soybeans (Following oats)	(10)	bu.	15	150	2.50	375	21.80	218	2,667
	Perm. Pasture	1,025	lbs. beef	158	161,870	0.184	29,785	14.80	15,168	157
	Idle	44								14,617
	Other 5/	244								
	Woodland	0								
	TOTAL 1/	2,447					80,584		55,692	5/ 25,503

- 1/ Does not include 40,938 acres woodland, as no conversion and/or benefits are expected.
- 2/ Farmsteads, farm roads, waste and non-agricultural.
- 3/ Calculated from columns 3 and 6; rounded to nearest unit.
- 4/ Calculated from columns 3 and 10; rounded to nearest cent.
- 5/ Adjusted net return to eliminate the effect of negative returns.
- 6/ All negative net returns were considered as zero.
- Parentnetical amounts are duplicated acreages.

TABLE V  
PROJECT AREA SUMMARY BY SOIL MAPPING UNITS

Basin: Boeuf-Tensas Rivers  
and Bayou Macon  
Project: Boeuf River and  
Bayou Lafourche  
Reach: BR-5  
State: Louisiana

(1) Soil Unit	(2) Acres	(3)		(4)		(5)		(6)		(7)		(8)		(9) Difference in net production
		Gross	Cost	Future without project (Production in dollars)	Cost	Net 1/	Gross	Future with project (Production in dollars)	Cost	Net 1/				
Zone B & C (Subject to Flooding)														
1	1,958	32,531	22,939	9,872	105,301	61,342	44,019	34,147						
1a	249	2,614	1,854	760	10,110	6,250	3,860	3,100						
2	1,286	36,387	24,680	11,755	73,016	44,240	28,824	17,069						
5	4,077	226,293	171,678	54,615	419,173	298,291	120,882	66,267						
5U	362	11,803	9,049	2,754	24,439	16,638	7,801	5,047						
8	199	1,908	1,113	795	7,124	3,754	3,379	2,575						
8f	107	2,120	1,032	1,088	2,120	1,032	1,088	0						
9S	1,005	43,165	26,768	16,439	48,282	27,594	20,721	4,282						
9U	902	26,403	17,992	8,411	50,273	29,928	20,345	11,934						
10	2,011	33,237	21,205	12,217	65,742	39,748	26,174	13,957						
10S	753	15,137	10,678	4,716	31,395	19,863	11,789	7,073						
10U	4,556	116,417	76,617	40,299	207,273	123,260	84,046	43,747						
11	159	13,871	11,043	2,828	16,609	11,271	5,338	2,510						
Total	12,624	561,886	396,648	166,549	1,060,857	683,211	378,257	211,708						

1/ Adjusted for negative net returns of \$700 table III B and \$611 table III C.

2/ Does not include 3,234 acres dedicated to woodland; and 2,602 acres remaining in woodland in Zone B and 40,938 acres remaining in woodland in Zone C. Total acres Zones B & C 64,398.



TABLE VI  
LAND CONVERSION COSTS WITH PROJECT

Basin: Boeuf-Tensas Rivers  
and Bayou Macon  
Project: Boeuf River and  
Bayou Lafourche  
Reach: BR-5  
State: Louisiana

Type of Conversion	Total Area Acres	Cost of Clearing Dollars	Cost of Smoothing Dollars	Cost of Pasture Establishment Dollars	Total Cost Dollars
Woods to Other Land	443	26,580	0	0	26,580
Woods to General Crops	3,124	187,440	6,248	0	193,688
Woods to Pasture	863	51,780	0	23,733	75,513
Pasture to General Crops	106	0	212	0	212
General Crops to Pasture	18	0	0	495	495
Pasture to Improved Pasture	2,926	0	0	24,871	24,871
TOTAL FOR REACH BR-5					321,359
Annual Amortized Value (.05478)					17,604
Annual Maintenance of Converted Pasture	881				
Annual Maintenance of Improved Pasture	2,926				
					16,461



TABLE VII  
ANALYSIS OF FARM DRAINAGE SYSTEM COSTS

Basin: Boeuf-Tensas Rivers  
and Bayou Macon  
Project: Boeuf River  
and Bayou Lafourche  
Reach: BR-5  
State: Louisiana

Zone B

Soil Mapping Unit and Land Use	Area	Construction Cost Per acre	Total	Engineer- ing Cost	Contin- gency Cost	Total Cost Installation	Annual Equi- valent Inst. Cost 1/	Annual Maintenance Cost	Total Annual Cost
1 & 1a-Cropland Pasture	Acres 1,339 186	Dollars 15.18 8.34	Dollars 20,326 1,551	Dollars 4,065 310	Dollars 2,033 155	Dollars 26,424 2,016	Dollars 3,422 261	Dollars 3,049 47	Dollars 6,471 308
2 -Cropland Pasture	551 179	13.08 8.34	7,207 1,493	1,441 299	721 149	9,369 1,941	1,213 251	1,081 45	2,294 296
5 & 5U-Cropland Pasture	2,517 362	11.56 7.29	29,097 2,639	5,819 528	2,910 264	37,826 3,431	4,898 444	4,365 79	9,263 523
8f -Cropland Pasture	143	7.92	1,133	227	113	1,473	191	34	225
9S & 9U-Cropland Pasture	647 572	11.43 8.73	7,395 4,994	1,479 999	740 499	9,614 6,492	1,245 841	1,109 150	2,354 991
10c -Cropland Pasture	492 526	15.03 7.92	7,395 4,166	1,479 833	740 417	9,614 5,416	1,245 701	1,109 125	2,354 826
10S & 10U-Cropland Pasture	2,004 935	13.03 8.53	26,112 7,976	5,222 1,595	2,611 798	33,945 10,369	4,396 1,343	3,917 239	8,313 1,582
11 -Cropland Pasture	94 5	11.56 7.29	1,087 36	217 7	109 4	1,413 47	183 6	163 1	346 7
TOTAL	10,552		122,607	24,520	12,263	159,390	20,640	15,513	36,153

1/ Amortized at 5% for 10 year period (0.12950)

Basin: Boeuf-Tensas Rivers  
and Bayou Macon  
Project: Boeuf River and  
Bayou Lafourche  
Reach: BR-5  
State: Louisiana

TABLE IX  
SUMMARY OF ANNUAL NET PRODUCTION RETURNS AND ASSOCIATED COSTS

(1) Item	(2) Total <u>Dollars</u>	(3) Discounted amount <u>Dollars</u>
1. Net return with projects	352,754	
2. Net return without projects	141,046	
3. Gross benefit to projects	211,708	167,832
4. Farm Drainage Cost		
(a) Installation Cost	20,640	
(b) Maintenance Cost	15,513	
(c) Total	36,153	28,660
5. Group Drainage Cost		
(a) Installation Cost	0	
(b) Maintenance Cost	0	
(c) Total	0	0
6. Conversion Cost		
(a) Installation Cost	17,604	
(b) Maintenance Cost	16,461	
(c) Total	34,065	27,005

Gross benefits to authorized & proposed projects 167,832  
Less associated costs 55,665  
Net return to authorized & proposed projects 112,167  
Net return times 40% attributable to proposed project 44,867



Basin: Boeuf-Tensas Rivers  
& Bayou Lafourche  
 Project: Boeuf River &  
Bayou Lafourche  
 Reach: All Reaches-Summary  
 State: Louisiana

Soil Unit	Acres	Future without project		Future with project 1/		Difference in net value
		(Value of production in dollars) Gross	Cost	(Value of production in dollars) Gross	Cost	
1	16,696	261,976	152,552	Zone A (Not subject to flooding)		
1a	4,655	47,085	27,163	109,639	859,249	474,311
1u	55	1,048	644	20,542	203,308	116,568
2	4,193	110,642	69,507	404	3,026	1,786
5u	345	16,645	12,725	41,240	287,759	176,141
10	2,668	40,229	23,475	3,920	24,757	17,195
10u	360	6,286	4,006	16,924	116,831	71,817
				2,366	19,664	11,851
Subtotal	2/28,972	483,911	290,072	195,035	1,514,594	869,669
						644,925
				Zones B & C (Subject to flooding)		
1	20,480	341,781	212,602	129,805	1,070,622	626,974
1a	23,794	217,936	121,185	96,791	853,451	515,224
1u	1,988	45,328	25,139	20,189	93,106	52,240
2	5,897	169,425	113,904	55,579	359,429	215,924
2u	2,372	89,273	57,488	31,785	147,029	84,914
5	15,136	850,225	589,533	260,692	1,503,800	1,022,198
5s	136	6,084	3,331	2,753	9,618	5,616
5u	3,023	99,994	66,722	33,272	198,984	129,904
8	326	2,946	1,696	1,250	11,739	6,186
8f	107	2,120	1,032	1,088	2,120	1,032
9	58	2,494	1,948	546	2,494	1,948
9s	1,532	59,171	36,459	22,760	78,389	44,858
9u	902	26,403	17,992	8,411	50,273	29,928
10	5,235	89,135	54,279	36,344	183,955	114,575
						443,940
						338,227
						40,866
						143,563
						62,115
						481,602
						4,002
						69,080
						5,553
						1,088
						546
						33,564
						20,345
						70,859
						314,135
						244,436
						20,677
						87,984
						30,330
						220,910
						1,249
						35,808
						4,303
						0
						10,804
						11,934
						34,516



TABLE V  
SUP-PROJECT SUMMARY BY SOIL MAPPING UNITS

Basin: Boeuf-Tensas Rivers  
& Bayou Macon  
Project: Boeuf River &  
Bayou Lafourche  
Reach: All Reaches-Summary  
State: Louisiana

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Soil Unit	Acres	Future without project			Future with project <u>4/</u>			Difference in net value
		(Value of production in dollars) Gross	Cost	Net <u>1/</u>	(Value of production in dollars) Gross	Cost	Net <u>1/</u>	
10U	8,298	221,226	145,863	76,706	413,032	250,612	162,453	85,747
10S	766	15,441	10,832	4,866	31,699	20,017	11,939	7,073
11	631	47,223	37,577	9,646	63,942	46,453	17,489	7,843
Subtotal <u>3/</u>	90,681	2,286,205	1,497,582	792,480	5,073,682	3,168,603	1,907,231	1,114,751
TOTAL	119,653	2,770,116	1,787,654	987,515	6,588,276	4,038,272	2,552,156	1,564,641

1/ Adjusted for negative net returns of \$1,196 Table III A.  
Adjusted to eliminate negative net returns of \$1,724 in Table III B and \$2,133 in Table III C, and \$19 in Table IV B.

2/ Does not include 34,982 acres already drained; 62,141 acres expected to be drained future without project; 6,150 acres not expected to participate in drainage program; 724 acres dedicated woodland; 23,944 acres to remain in woodland; and 3,174 acres converted woodland not expected to participate in drainage program; 3,798 acres urban and 780 acres in Reservoir. Total acres in Zone A = 164,665.

3/ Does not include 59,352 acres dedicated woodland; 56,445 acres to remain in woodland in Zone B and 4,331 acres in Reservoir. Does not include 110,421 acres to remain in woodland in Zone C. Total Zone B & C = 321,230 acres.

4/ Includes Zone C which is assumed to be the same as future conditions without project.







